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CITY AND COUNTY OF BRISTOL

THE
HEALTH OF BRISTOL
IN
1958

R. C. WOFINDEN
M.D., B.S., D.P.H., D.P.A.
Medical Officer of Health

THE HEALTH OF BRISTOL IN 1958

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GENERAL REVIEW OF THE HEALTH OF BRISTOL

1958

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ANNUAL REPORT 1958

My Lord Mayor, Ladies and Gentlemen,

I have the honour to present my third Annual Report on the health of the City of Bristol in the year 1958.

The various aspects of the work are dealt with in detail in the different sections of the report but this preamble directs attention to some of the more important events or developments during the year.

This has been a year of consolidation together with steady developmental progress, particularly in the mental health section of the Department. Financial restrictions, particularly on capital projects, have continued to prevent any new major building but long term plans have been evolved and agreed to in principle by the City Council for the provision of additional health clinics, a new occupational centre and hostel for mental defectives, a new central ambulance station and new administrative headquarters for the Department.

Vital Statistics

There was a further slight rise in the number of live births to Bristol mothers, the live birth rate for 1958 being 15·93 compared with 15·89 in 1957. In consequence the high demand for maternal hospital beds has continued, and in default of additional bed provision, has thrown an increased strain on the Department's maternal and child health service.

The stillbirth rate of 17·18 per 1,000 total births showed a considerable fall from the 22·12 recorded for 1957; in fact this is the lowest figure ever recorded for the City. Lower stillbirth rates are nearly always accompanied by higher than usual neo-natal mortality and infant mortality rates and in 1958 the figures for Bristol showed a neo-natal mortality rate of 14·47 and an infant mortality rate of 20·64 per 1,000 live births registered in the year compared with rates of 13·79 and 18·33 respectively for 1957.

The adjusted death rate was 11·09 per 1,000, a slight increase over that for 1957 (10·61).

There were two maternal deaths during the year compared with one in 1957; neither death was considered preventable.

Infectious Diseases

For the ninth consecutive year there were no cases of, and for the twelfth consecutive year no deaths from, diphtheria. Nevertheless, in view of outbreaks of infection in various parts of the country our rather low diphtheria immunisation index (36·4%) gives no cause for satisfaction. It is true that in the past year the staff, and general medical practitioners, have been pre-occupied with major programmes of poliomyelitis vaccination but the blunt fact has to be faced that Bristol mothers are becoming too complacent about the risk of their babies contracting diphtheria. There is need to bring this matter into greater prominence and warn Bristol parents of the risk to which their children are exposed and to make strenuous endeavours to increase the number of children protected.

In 1958 the number of cases of whooping cough—237—was the lowest ever recorded and there were no deaths. It is probable that whooping cough prophylaxis is beginning to pay dividends but the percentage of young babies protected remains too low for satisfaction.

Departmental policy has been to encourage protection against diphtheria, whooping cough and tetanus by the provision of triple vaccine in the interests of convenience to parents, children and staff. We look forward to the time when it will be possible to combine poliomyelitis prophylaxis with that against diphtheria, whooping cough and tetanus.

Only three cases of poliomyelitis were notified during the year—the lowest figure since 1947 which contrasts sharply with the 98 cases recorded in 1957. It is tempting, but perhaps too early, to regard this low number as being due to our poliomyelitis vaccination programme. Nevertheless, that 63,569 children under 15 out of 101,000 in the City (*i.e.*, nearly 63%) had received two injections by the end of the year is a matter for congratulations to Bristol parents, general medical practitioners and not least to all your Health Department staff who co-operated so enthusiastically in spite of frustrating difficulties arising out of shortage of supplies and oft repeated last minute changes in the arrangements for the supply of vaccine.

The absence of an influenza epidemic in 1958 probably accounts for the fall in the number of notifications of pneumonia from 734 to 434 cases.

There were no large scale outbreaks of food infections, 162 cases being reported compared with 143 in 1957, *salmonella typhimurium* remaining the predominant causal organism.

Dysentery notifications increased greatly, from 93 in 1957 to 912 in 1958 although once again there were no deaths. As in previous years showing high notification rates, the prevalent type has been shigella dysentery (*Sonne*) and the majority of cases has occurred in children under 10 years of age. This disease is undoubtedly under-reported and the true incidence was probably much higher, a matter of some concern in these days of increased stress on personal hygiene for there is no doubt that it is spread by a disregard of normally accepted standards of personal cleanliness.

The incidence of notified pulmonary tuberculosis, 271 cases compared with 301 in 1957, was the lowest ever recorded.

Environmental Health

During the year, a smoke control area comprising some 220 acres in the City centre was approved by the City Council and will be in operation by the end of 1959.

Progress in the City's slum clearance campaign was slowed down partly because of financial stringency restricting the provision of new houses and partly because of the diminished staff time available to conduct surveys consequent upon a large number of public enquiries.

Much time was spent, and invaluable help given, by your officers in ensuring sanitary and hygienic arrangements for the Royal Agricultural Society's Show which was held at Whitchurch during the course of the year.

Mental Health

The provision of a residential hostel for mental defectives and for a new occupation centre has been under active consideration during the year. The latter project is very urgent as each year the demand for places at Marlborough House Occupation and Industrial Centre increases. The agreed policy of the Council is to erect a new training centre on the Bush Estate and to utilize Marlborough House as a hostel. A notable feature of the year has been the production of a sound film in colour, showing the many activities at Marlborough House. The Parent-Teachers' Association financed this project and they are to be congratulated on their generosity and public spiritedness. Bristol Amateur Cine Club were responsible for the filming.

Your officers have again had an active year in the field of health education. More and more members of the general public are being encouraged to take a more active interest in the maintenance of good health and the preservation of life and in this latter respect the organizations represented upon the Home Safety Council and the members of the panel of speakers are doing much valuable work.

The First Ten Years of the National Health Service

The Minister of Health in his Circular 22/58 addressed to Local Health Authorities asks that the Medical Officer of Health should include in his report a brief general review of the manner in which, during that period, the local health services have functioned in the wider setting of the National Health Service generally.

It was here that an integrated maternity scheme (recently recommended for nation-wide adoption by the Cranbrook Committee) was first tried out successfully. Here, too, was made the first tentative approach to the prevention of mental ill-health through the medium of the maternal and child health service and in later years this has been extended to give facilities in other parts of the City. Here is being witnessed the renewed interest of general medical practitioners in the preventive and promotive aspects of medicine. Given fuller co-operation by the Ministry of Health, the Regional Hospital Board and Board of Governors of the Teaching Hospital by the provision of diagnostic aids, I believe much could be done to make really true the idea to which so much lip-service has been paid, that the "general medical practitioner is the most important, indeed the key figure, in the National Health Service".

These ten years have also been notable for the slow emergence of the idea and health committees must be preventive minded and for this reason some two years ago we embarked on our first attempt to set up a service consciously aimed at preventing mental ill-health—a laudable ambition in these days when society worries more about its problems of juvenile delinquency, broken homes, child neglect, anti-social behaviour, war-mongers and makers and the like. Our first efforts are bound to be fumbling, for in spite of new Mental Health Bills we still know relatively little about the causes and treatment of mental disorders.

Inescapably, these trends have thrown an increasing burden on local authority staffs and on rate-aided facilities and this during a period when really skilled personnel—health visitors, midwives, psychiatric social workers and mental welfare officers—have been scarce. On the whole, the Local Health Authority has shouldered its new burdens manfully and with a good spirit. From time to time alarm has been expressed at the increasing burden the ratepayer has to carry because of the alleged failure of the Regional Hospital Board to face up to its responsibilities. This shows a fundamental misconception of legal responsibilities under the Act and of the trends in development of health services. Nevertheless it is an expression of opinion which cannot be ignored and which may be heard more frequently in the future as steps are taken to make effective this policy of the flight from the hospital. Sooner or later in my view it is likely to lead to firm support for a single local administration at the local level.

Primary prevention of infectious disease through smallpox vaccination. diphtheria and whooping cough immunisation, B.C.G., and poliomyelitis vaccination has been a brilliant success which, in spite of the much appreciated help of general practitioners, could not have been achieved in the absence of a local health authority.

The home nursing service has played an unspectacular but invaluable role in the past ten years; home nurses have been the handmaidens of the general medical practitioners, enabling them to take a more effective part in keeping sick and infirm aged persons in their own homes. It is interesting to record how the pattern of the home nurse's work has changed over the years. There was a period when, on behalf of the home doctor, much of her time was occupied in giving drug injections thus helping the general practitioner to treat more patients in their own homes. Latterly, with the development of oral substitute drugs, the home nurse has far fewer injections to give. Throughout the period there has been a steadily increasing volume and variety of nursing equipment provided for home use.

It would be tedious and take far too long to give full supporting facts and figures to the story I have tried to unfold. Such data is readily obtainable in

It is with deep regret that I place on record the death of Councillor W. J. Munslow, a member of the health committee for so many years. Always sincere in his approach to health problems, his help and advice will greatly be missed.

Once again I would like to place on record my thanks for the support and guidance I have received from the Chairman, Vice-Chairman and members of the Health Committee and the City Council. My sincere thanks are also given to the Town Clerk and other Chief Officers of the Corporation for their ever willing help and advice.

In conclusion it is with considerable pleasure and gratitude that I acknowledge my indebtedness to an enthusiastic, hard-working and co-operative staff. Through their efforts Bristol maintains its proud record as a healthy City.

I am,

Your obedient servant,

R. C. WOFINDEN,

Medical Officer of Health.

THE HEALTH COMMITTEE 1958

Chairman:
Alderman J. J. MILTON, O.B.E., J.P.

Vice-Chairman:
Mr. W. H. ENGLAND

Aldermen:
Mrs. A. E. NUTT
G. P. C. FORD

Councillors:

A. B. ABRAMS
W. A. BUSH
W. W. CLOTHIER
B. J. M. DAVIES
J. D. FISK
S. T. GAMLIN

Mrs. P. M. JACOB
Mrs. B. MERCHANT
Mrs. C. B. E. SHEPHERD
H. J. G. SKEATES
A. E. C. TUDBALL
C. O. WORTH

PUBLIC HEALTH STAFF, 1958

Medical Officer of Health (City, Port and Schools): R. C. WOFINDEN, M.D., B.S., D.P.H., D.P.A.
Deputy Medical Officer of Health: P. G. ROADS, M.D., B.S., D.P.H.

Principal Assistants

Chief Assistant Medical Officer of Health and Senior Medical Officer for Mental Health: H. TEMPLE PHILLIPS, M.D., B.S., D.I.H., D.C.H., D.P.H.
Senior Medical Officer—Port: D. T. RICHARDS, M.R.C.S., L.R.C.P., D.P.H.
Senior Medical Officer—School Health Service: A. L. SMALLWOOD, M.D., CH.B., D.C.H., D.P.H.
Senior Medical Officer—Maternal and Child Welfare: SARAH C. B. WALKER, M.D., B.S., D.P.H.
Epidemiologist for Tuberculosis: A. M. MCFARLAN, M.A., M.B., B.CH.
Senior Dental Officer: W. H. STRIDE, L.D.S. (*Retrd. 6th July, 1958*); J. McCaig, L.D.S., R.F.P.S. (*Commd. 17th November, 1958*).
Chief Public Health Inspector: F. J. REDSTONE, F.R.S.H., F.A.P.H.I.
Chief Administrative Officer: P. J. ROOM.
Chief Nursing Officer: Miss L. M. BENDALL.

Technical Officers

Health Education Officer: P. MACKINTOSH, B.A.
Medical Records Officer: Miss E. H. L. DUNCAN, M.A., B.SC.
Nutritionist: Miss M. CHAPMAN.

Consultant Bacteriologist

Professor K. E. COOPER, B.SC., PH.D., M.R.C.S., L.R.C.P., A.I.C.

Deputy Consulting Bacteriologist

H. R. CAYTON, M.B., CH.B.

Public Analyst

E. G. WHITTLE, B.SC., F.R.I.C.

SUMMARY OF VITAL STATISTICS

Population

The Registrar General has estimated the home population (including H.M. Forces stationed in the area) at mid-year 1958 to be 438,000, a decrease of 1,600 from that for the previous year. The rates for 1958 are based upon this estimated figure.

The figures given in the following tables for births, stillbirths, and deaths (but not marriages) are those allocated by the Registrar General to Bristol as registered during the respective years and corrected for inward and outward transfers according to residence.

	1958	*1957*
Estimated home population (mid-year)	438,000	439,600
Marriages	3,213	3,446
Rate (persons married) per 1,000 population ..	14·67	15·68
Births registered during year	6,978	6,984
Rate per 1,000 population	15·93	15·89
Rate per 1,000 population adjusted (ACF. 1958 1·00)	15·93	15·89
Stillbirths registered during year	122	158
Rate per 1,000 total births	17·18	22·12
Deaths registered during year	5,227	5,184
Crude rate per 1,000 population	11·93	11·79
Adjusted rate per 1,000 population (ACF. 1958 0·93)	11·09	10·61
Natural increase (per 1,000 population)	4·00	4·09
Deaths under one year registered during year ..	144	128
Rate per 1,000 live births registered during year	20·64	18·33
Deaths under four weeks registered during year ..	101	96
Rate per 1,000 live births registered during year	14·47	13·75
Deaths from puerperal causes registered during year	2	1
Rate per 1,000 total births registered during year	0·28	0·14

Marriages

	Number of marriages during year	*Rate persons married per 1,000 popn.*
1958	3,213	14·67
1957	3,446	15·68
1956	3,581	16·26
1955	3,535	15·98
1954	3,377	15·18
1953	3,460	15·58
1952	3,585	16·15
1951	3,506	15·88
1950	3,512	15·87
1949	3,783	17·20
1948	3,786	17·41

Births

					Year				
	1950	*1951*	*1952*	*1953*	*1954*	*1955*	*1956*	*1957*	*1958*
R.G.'s figures:—									
Registered live births (Bristol citizens)	7,096	6,872	6,760	6,945	6,691	6,531	6,669	6,984	6,978
Birth rate per 1,000 pop. ..	16·03	15·56	15·23	15·63	15·04	14·76	15·14	15·89	15·93
Live births notified in Bristol during the year	7,897	7,511	7,557	7,781	7,641	7,469	7,785	8,324	8,580
(Births are notified in the district where they occur)									
Non-citizens included above ..	727	844	900	917	1,060	1,129	1,259	1,429	1,587

Illegitimacy (Rate: 48 per 1,000 live births registered during year)

	1957	*1958*
Registrar General's total—		
Illegitimate live births (corrected for residence)	335	336
Illegitimate live births a spercentage of total (corrected) live births	4·8	4·8

Stillbirths Total No. (corrected by R.G. for residence) registered during 1958—122 (1957—158). Rate: 17·2 per 1,000 total births registered.

Deaths Rate: (Crude) 11·93 per 1,000 population
(Adjusted) 11·09 per 1,000 population (Area Comparability Factor 0·93)

During 1958 the total number of deaths actually *occurring* in Bristol within the year was 5,857 of which 916 were non-citizens. The number of inward transfers in respect of citizens who died outside the City area was 277.

The Registrar General's corrected figure for deaths of Bristol citizens registered during 1958 is 5,227 and the crude death rate is 11·93 per 1,000 population. Comparable figures of the Registrar General for 1957—5,184 deaths and the rate—11·79.

Natural Increase Rate: 4·00 per 1,000 population.

	1957	*1958*
Bristol births registered during year	6,984	6,978
Bristol deaths registered during year	5,184	5,227
Natural increase	+1,800	+1,751

Infant Mortality (Rate: 21)

Total deaths of Bristol citizens under 1 year of age registered during 1958	144
Rate per 1,000 registered live births (Bristol citizens)	20·64

	1958	*1957*	*1956*	*1955*	*1954*	*1953*	*1952*	*1951*	*1950*
Legitimate infant mortality rate per 1,000 legitimate live births reg. in the year ..	20·3	18·1	19·6	18·9	20·7	22·3	20·9	20·2	23·0
Illegitimate I.M. rate per 1,000 illegitimate L.B. registered in the year	26·8	23·9	13·7	24·6	22·0	12·9	33·1	24·8	29·0

Neo-Natal Deaths (*i.e.*, deaths under four weeks of age).

Total deaths of Bristol citizens in this age-group, registered during 1958 ..	101
Rate per 1,000 registered live births (Bristol citizens)	14·47

During 1958 the deaths of 101 babies during the first four weeks of life were registered (Bristol citizens). (Comparable figure for the year 1957 is 96).

These deaths represent 70 per cent of the total infants (Bristol citizens) dying under one year of age (75 per cent in 1957).

In 1958, 49 of these deaths occurred on the first day and 33 in the remainder of the first week.

For 1958, of the total of 101 neo-natal deaths, shown by the Registrar General, 7 were of illegitimate babies. This gives a legitimate neo-natal mortality rate of 14·2 per 1,000 legitimate live births registered in 1958 and an illegitimate neo-natal mortality rate of 20·8 per 1,000 illegitimate live births registered in 1958.

Maternal Mortality (Number of deaths—2). Rate: 0·28 per 1,000 total births (live and still) registered during the year.

One of these two deaths occurred in December 1957 and was not registered until February 1958 because it followed self-induced abortion and the coroner had not concluded his investigations.

The other was due to Amniotic fluid embolism following normal childbirth.

A third maternal death occurred in Bristol to a non-citizen as a result of haemorrhage of pregnancy.

VITAL STATISTICS

TABLE I. Supplied by the Registrar General

Population, marriages, births, deaths, natural increase, infant mortality—for Calendar Year 1958 and previous six years—(Registrations during year)

	1958	*1957*	*1956*	*1955*	*1954*	*1953*	*1952*
Estimated population. Home (mid-year):	438,000	439,600	440,500	442,500	444,900	444,200	443,900
Marriages:							
Number	3,213	3,446	3,581	3,535	3,377	3,460	3,585
Rate persons married per 1,000 population	14·67	15·68	16·26	15·98	15·18	15·58	16·15
Birth registrations:							
Legitimate—males	3,416	3,444	3,271	3,216	3,298	3,365	3,249
females	3,226	3,205	3,105	3,030	3,075	3,271	3,209
Illegitimate—males	175	166	150	152	158	141	156
females	161	169	143	133	160	168	146
Total	6,978	6,984	6,669	6,531	6,691	6,945	6,760
Rate per 1,000 population	15·93	15·89	15·14	14·76	15·04	15·63	15·23
Illegitimate live births per cent of total live births	4·8	4·8	4·4	4·4	4·8	4·4	4·5
Stillbirth registrations:							
Legitimate—males	62	73	85	66	72	64	77
females	55	78	72	57	81	55	61
Illegitimate—males	3	5	4	6	2	4	4
females	2	2	9	6	5	3	2
Total	122	158	170	135	160	126	144
Rate per 1,000 live and still-births ..	17	22	25	20	23	18	21
Total live and still-births	7,100	7,142	6,839	6,666	6,851	7,071	6,904
Death registrations:							
Males	2,613	2,586	2,727	2,647	2,583	2,591	2,504
Females	2,614	2,598	2,668	2,561	2,582	2,555	2,467
Total	5,227	5,184	5,395	5,208	5,165	5,146	4,971
Rate per 1,000 population	11·93	11·79	12·25	11·77	11·61	11·58	11·20
Natural increase per 1,000 population ..	4·00	4·09	2·89	2·99	3·43	4·05	4·03
Deaths under one year (registered):							
Legitimate	135	120	125	118	132	148	135
Illegitimate	9	8	4	7	7	4	10
Total	144	128	129	125	139	152	145
Rate per 1,000 live births	21	18	19	19	21	22	21
Legitimate infant mortality rate—per 1,000 live births, legitimate	20	18	20	19	21	22	21
Illegitimate I.M. rate per 1,000 live births, illegt.	27	24	14	25	22	13	33
Deaths under four weeks: Total deaths	101	96	97	83	106	105	102
Neo-natal mortality rate per 1,000 live births	14	14	15	13	16	15	15
Diarrhoea and Enteritis (under two years):							
Deaths	2	3	2	3	1	3	2
Rate per 1,000 live births	0·29	0·43	0·30	0·46	0·15	0·43	0·30
Maternal mortality (including abortion):							
Deaths from:							
Sepsis of pregnancy, childbirth and the puerperium	—	—	1	1	1	1	—
Abortion with toxaemia	—	—	—	—	1	1	—
Other toxaemias of pregnancy and the puerperium	—	1	—	—	1	—	4
Haemorrhage of pregnancy and childbirth	—	—	—	—	—	1	—
Abortion without mention of sepsis or toxaemia	1	—	—	—	—	—	1
Abortion with sepsis	—	—	—	—	—	2	1
Other complications of pregnancy, childbirth and the puerperium ..	1	—	1	1	1	2	1
Total deaths	2	1	2	2	4	7	7
Rate per 1,000 total (live and still) ..	0·28	0·14	0·29	0·30	0·58	0·99	1·01

TABLE 2. Supplied by the Registrar General

Birth-rates, death-rates, analysis of mortality, maternal mortality and case-rates for certain infectious diseases in the year 1958

(Provisional figures based on quarterly returns)

	BRISTOL		*ENGLAND & WALES*	
	Rates per 1,000 Home Population	*Rates per 1,000 Total Births (Live & Still)*	*Rates per 1,000 Home Population*	*Rates per 1,000 Total Births (Live & Still)*
Birth Registrations:				
Live	15·9		16·4*	
Still		17·2		21·6
Death Registrations:				
ALL CAUSES (Crude)	11·9		11.7	
(Adjusted)	11·1			
Typhoid and paratyphoid fevers	—		0·00	
Whooping Cough	—		0·00	
Diphtheria	—		0·00	
Tuberculosis	0·11		0·10	
Influenza	0·05		0·05	
Smallpox	—		0·00	
Acute poliomyelitis (including polioencephalitis)	—		0·00	
Pneumonia	0·47		0·54	
Notifications (Corrected):				
Typhoid fever	—		0·00	
Paratyphoid	0·00		0·00	
Meningococcal infection	0·02		0·02	
Scarlet fever	0·80		0·86	
Whooping cough	0·54		0·74	
Diphtheria	—		0·00	
Erysipelas	0·15		0·07	
Smallpox	—		0·00	
Measles	6·30		5·75	
Pneumonia	0·99		0·49	
Acute poliomyelitis (including polioencephalitis):—				
Paralytic	0·00		0·03	
Non-paralytic	0·00		0·01	
Food poisoning	0·37		0·20	
Puerperal pyrexia	—	14·65		

	Rates per 1,000 Live Births	
	Bristol	*England & Wales*
Deaths under one year of age	20·64	22·6†
Deaths from diarrhoea and enteritis (under 2 years of age)	0·29	

Maternal Mortality:	*Rate per 1,000 Total Births (i.e., Live and Still)*				*Rate per Million Women aged 15 to 44 (England & Wales)*
	Deaths		*Deaths*		
	No.	*Rate*	*No.*	*Rate*	
	BRISTOL		*ENG. & WALES*		
Maternal causes—excluding abortion	1	0·14	263	0·35	29
Due to abortion	1	0·14	63	0·08	7
Total maternal mortality	2	0·28	326	0·43	36

* The provisional birth rate shown above for England and Wales is the highest since 1949.

† The provisional infant death rate for England and Wales is the lowest ever recorded in the country.

TABLE 3. Compiled from figures supplied by the Registrar General

Total deaths of Bristol Citizens by cause and age registered during Calendar Year 1958

DISEASE	*Sex*	*All ages*	*0–*	*1–*	*5–*	*15–*	*45–*	*65–*	*75 & over*
All Causes	M	2,613	93	9	14	142	716	735	904
	F	2,614	51	7	10	81	467	601	1,397
1. T.B. Respiratory	M	22	—	—	—	2	9	10	1
	F	15	—	—	—	4	3	6	2
2. T.B. Other	M	4	—	—	—	4	—	—	—
	F	6	—	1	—	—	3	1	1
3. Syphilitic Disease	M	6	—	—	—	—	2	3	1
	F	5	—	—	—	—	2	3	—
4. Diphtheria	M	—	—	—	—	—	—	—	—
	F	—	—	—	—	—	—	—	—
5. Whooping Cough	M	—	—	—	—	—	—	—	—
	F	—	—	—	—	—	—	—	—
6. Meningococcal Infection	M	—	—	—	—	—	—	—	—
	F	—	—	—	—	—	—	—	—
7. Acute Poliomyelitis	M	—	—	—	—	—	—	—	—
	F	—	—	—	—	—	—	—	—
8. Measles	M	—	—	—	—	—	—	—	—
	F	—	—	—	—	—	—	—	—
9. Other Infective and Parasitic Diseases	M	7	—	—	1	—	4	2	—
	F	3	—	—	1	1	1	—	—
10. Malignant Neoplasm of Stomach	M	76	—	—	—	2	30	22	22
	F	44	—	—	—	4	7	17	16
11. ,, ,, ,, Lung, Bronchus	M	184	—	—	—	5	92	62	25
	F	22	—	—	—	2	8	10	2
12. ,, ,, ,, Breast	M	1	—	—	—	1	—	—	—
	F	86	—	—	—	2	45	22	17
13. ,, ,, ,, Uterus	F	42	—	—	—	8	17	5	12
14. ,, Other & Lymp. Neoplasms	M	215	2	1	1	16	61	56	78
	F	209	2	1	1	14	72	54	65
15. Leukaemia, Aleukaemia	M	20	1	—	3	5	3	5	3
	F	12	—	—	1	—	5	2	4
16. Diabetes	M	10	—	—	—	3	2	3	2
	F	26	—	—	—	—	2	12	12
17. Vascular Lesions of Nervous System	M	282	—	—	—	10	64	81	127
	F	487	—	—	—	5	60	108	314
18. Coronary Disease, Angina	M	514	—	—	—	7	182	178	147
	F	352	—	—	—	2	55	110	185
19. Hypertension with Heart Disease	M	107	—	—	—	3	41	36	27
	F	104	—	—	—	—	25	39	40
20. Other Heart Disease	M	309	—	—	—	8	34	67	200
	F	461	—	—	—	6	49	65	341
21. Other Circulatory Disease	M	131	—	—	—	—	26	32	73
	F	190	—	—	—	1	20	28	141
22. Influenza	M	9	—	—	—	2	5	2	—
	F	13	—	—	—	3	3	2	5
23. Pneumonia (including Pneu. of Newborn)	M	101	11	2	1	3	18	21	45
	F	107	6	2	1	3	12	25	58
24. Bronchitis	M	171	—	—	1	4	40	67	59
	F	78	2	—	—	—	5	21	50
25. Other Diseases of Respiratory System	M	35	1	—	1	—	11	12	10
	F	17	—	—	—	—	3	5	9
26. Ulcer of Stomach and Duodenum	M	24	—	—	—	1	6	11	6
	F	25	—	—	—	—	4	7	14
27. Gastritis, Enteritis and Diarrhoea	M	13	2	—	—	3	2	4	2
	F	12	—	—	—	1	3	3	5
28. Nephritis and Nephrosis	M	14	—	—	—	3	7	3	1
	F	20	—	—	—	3	6	5	6
29. Hyperplasia of Prostate	M	34	—	—	—	—	1	10	23
30. Pregnancy, Childbirth, Abortion	F	2	—	—	—	2	—	—	—
31. Congenital Malformations	M	28	19	—	2	2	4	1	—
	F	28	22	—	2	2	2	—	—
32. Other Defined and Ill-Defined Diseases	M	178	57	—	1	15	40	32	33
	F	173	19	2	2	9	40	34	67
33. Motor Vehicle Accidents	M	40	—	2	1	21	7	3	6
	F	13	—	—	1	2	1	4	5
34. All other Accidents	M	49	—	4	2	15	13	7	8
	F	44	—	1	—	2	6	10	25
35. Suicide	M	27	—	—	—	7	10	5	5
	F	17	—	—	—	5	8	3	1
36. Homicide and Operations of War	M	2	—	—	—	—	2	—	—
	F	1	—	—	1	—	—	—	—

TABLE 4. Compiled from figures supplied by Registrar General
Causes of death registered during Calendar Year 1958

Death Rate per 1,000 Population		*Disease*	*No. Deaths 1958*	*Per cent. of all Deaths*
·084	1.	T.B. Respiratory	37	·71
·023	2.	T.B. Other	10	·19
·025	3.	Syphilitic disease	11	·21
—	4.	Diphtheria	—	—
—	5.	Whooping Cough	—	—
—	6.	Meningococcal infection	—	—
—	7.	Acute poliomyelitis	—	—
—	8.	Measles	—	—
·023	9.	Other infective and parasitic disease	10	·19
·274	10.	Malignant neoplasm of stomach	120	2·30
·470	11.	,, ,, ,, lung, bronchus	206	3·94
·199	12.	,, ,, ,, breast	87	1·66
·096	13.	,, ,, ,, uterus	42	·80
·968	14.	,, other and lymp. neoplasms	424	8·11
·073	15.	Leukaemia, aleukaemia	32	·61
·082	16.	Diabetes	36	·69
1·756	17.	Vascular lesions of nervous system	769	14·71
1·977	18.	Coronary disease, angina	866	16·57
·482	19.	Hypertension with heart disease	211	4·04
1·758	20.	Other heart disease	770	14·73
·733	21.	,, circulatory disease	321	6·14
·050	22.	Influenza	22	·42
·475	23.	Pneumonia (including pneumonia of new-born)	208	3·98
·568	24.	Bronchitis	249	4·76
·119	25.	Other diseases of respiratory system	52	1·00
·112	26.	Ulcer of stomach and duodenum	49	·94
·057	27.	Gastritis, enteritis and diarrhoea	25	·48
·078	28.	Nephritis and nephrosis	34	·65
·078	29.	Hyperplasia of prostate	34	·65
·005	30.	Pregnancy, childbirth, abortion	2	·04
·128	31.	Congenital malformations	56	1·07
·801	32.	Other defined and ill-defined diseases	351	6·72
·121	33.	Motor vehicle accidents	53	1·01
·212	34.	All other accidents	93	1·78
·100	35.	Suicide	44	·84
·007	36.	Homicide and operations of war	3	·06
11·934		All Causes	5,227	

TABLE 5. Deaths (corrected for transfers) occurring within the years 1957 and 1958 (Local figures)

International Code No.		*1957*		*1958*	
		Total	*Including*	*Total*	*Including*
001–008	T.B. of respiratory system	30		37	
010–019	T.B. other	6		7	
020–029	Syphilis and its sequelae	7		8	
030–039	Gonococcal infection and other V.D.	—		—	
040–049	Infectious disease in intestinal tract	—		2	
050–064	Other bacterial diseases	3		—	
070–074	Spirochaetal diseases (except syphilis)	—		—	
080–096	Diseases attributed to viruses	9		4	
100–108	Typhus and other rickettsial diseases	—		—	
110–117	Malaria	—		—	
120–138	Other infective and parasitic diseases	1		1	
140–148	Malignant neoplasm of buccal cavity and pharynx	16		18	
150–159	Malignant neoplasm digestive organs and peritoneum	357		333	
151	Malignant neoplasm stomach		151		117
153	Malignant neoplasm large intestine (except rectum)		84		84
154	Malignant neoplasm rectum		38		56
160–165	Malignant neoplasm respiratory system	202		215	
170–181	Malignant neoplasm breast & genito-urinary system	228		242	
170	Malignant neoplasm breast		85		87
171/4	Malignant neoplasm uterus		39		44
175	Malignant neoplasm ovary, fallopian tube and broad ligament		28		33
177	Malignant neoplasm prostate		28		23
180/1	Malignant neoplasm kidney, bladder and other urinary organs		45		48
190–199	Malignant neoplasm other and unspecified sites ..	53		60	
200–205	Neoplasms of lymphatic & haematopoitetic tissues	58		52	
210–229	Benign neoplasm	11		7	
230–239	Neoplasm of unspecified nature	17		6	
240–245	Allergic disorders	21		17	
250–254	Diseases of thyroid gland	3		6	
260	Diabetes mellitus	27		36	
270–277	Diseases of other endocrine glands	4		3	
280–289	Avitaminoses, and other metabolic diseases ..	5		5	
290–299	Diseases of blood-forming organs	17		20	
300–309	Psychoses	2		3	
310–318	Psychoneurotic disorders	—		—	
320–326	Disorders of character, behaviour and intelligence	2		—	
330–334	Vascular lesions affecting central nervous system..	712		767	
331	Cerebral haemorrhage		257		280
332	Cerebral embolism and thrombosis		405		389
340–345	Inflammatory diseases of central nervous system..	17		18	
350–357	Other diseases of central nervous system	67		31	
360–369	Diseases of nerves and peripheral ganglia ..	—		1	
370–379	Inflammatory diseases of eye	—		—	
380–389	Other diseases and conditions of eye	—		—	
390–398	Diseases of ear and mastoid process	3		2	
400–402	Rheumatic fever	—		2	
410–416	Chronic rheumatic heart disease	85		104	
420–422	Arteriosclerotic and degenerative heart disease ..	1452		1463	
420	Arteriosclerotic heart disease, including coronary disease		846		839
422	Other myocardial degeneration		583		601
430–434	Other diseases of the heart	74		69	
440–447	Hypertensive disease	236		284	
440/3	Hypertensive heart disease		191		233
450–456	Disease of arteries	231		237	
460–468	Diseases of veins and other diseases of circulatory system	37		19	

TABLE 5—continued

		1957		1958	
International Code No.		*Total*	*Including*	*Total*	*Including*
470–475	Acute upper respiratory infections	—		2	
480–483	Influenza	69		19	
490–493	Pneumonia (4 weeks plus)	268		196	
500–502	Bronchitis	242		255	
510–527	Other diseases of respiratory system	68		48	
530–539	Diseases of buccal cavity and oesophagus	1		3	
540–545	Diseases of stomach and duodenum	44		48	
550–553	Appendicitis	7		7	
560–561	Hernia of abdominal cavity	11		14	
570–578	Other diseases of intestines and peritoneum	35		36	
580–587	Diseases of liver, gallbladder and pancreas	32		30	
590–594	Nephritis and nephrosis	25		32	
600–609	Other diseases of urinary system	25		28	
610–617	Diseases of male genital organs	30		35	
620–626	Diseases of breast, ovary, fallopian tube and parametrium	—		1	
630–637	Diseases of uterus and other female genital organs	—		2	
640–649	Complications of pregnancy	1		—	
650–652	Abortion	1		—	
660	Delivery without complication	—		—	
670–678	Delivery with specified complication	—		—	
680–689	Complications of the puerperium	—		1	
690–699	Infections of skin and subcutaneous tissue	—		2	
700–716	Other diseases of skin and subcutaneous tissue	2		2	
720–727	Arthritis and rheumatism, except rheumatic fever	17		32	
730–738	Osteomyelitis and other diseases of bone and joint	3		4	
740–749	Other diseases of musculoskeletal system	2		3	
750–759	Congenital malformations	47		53	
760–769	Birth injuries, asphyxia and infections of newborn	51		63	
762	Postnatal asphyxia and atelectasis		31		48
763	Pneumonia of the newborn		2		5
770–776	Other diseases peculiar to early infancy	20		12	
780–789	Symptoms referable to systems or organs	3		3	
790–795	Senility and ill-defined diseases	19		15	
E800–802	Railway accidents	3		2	
E810–825	Motor vehicle traffic accidents	35		56	
E830–835	Motor vehicle non-traffic accidents	1		—	
E840–845	Other road vehicle accidents	1		1	
E850–858	Water transport accidents	3		2	
E860–866	Aircraft accidents	1		—	
E870–888	Accidental poisoning by solid and liquid substances	1		1	
E890–895	Accidental poisoning by gases and vapours	8		18	
E900–904	Accidental falls	44		30	
E910–936	Other accidents	17		33	
E940–946	Complications due to nontherapeutic medical and surgical procedures	—		—	
E950–959	Therapeutic misadventure and late complications of therapeutic procedures	—		—	
E960–965	Late effects of injury and poisoning	—		—	
E970–979	Suicide and self-inflicted injury	46		49	
E980–985	Homicide and injury purposely inflicted by other persons	5		1	
E990–999	Injury resulting from operations of war	—		—	
	TOTALS	5181		5218	

TABLE 6. Notifiable cases during 1958 (including Port Cases) *Local figures*

(During Calendar year)

Notifiable Diseases	Notifications								Removed to hospital		Notified in each quarter					Deaths (corrected for transfers) not necessarily relevant to notifications of 1958						
		At ages—years:															At ages—years:					
	At all ages	*Under 1*	*1 to 4*	*5 to 14*	*15 to 24*	*25 to 44*	*45 to 64*	*65 and upwards*	*No.*	*%*	*1st*	*2nd*	*3rd*	*4th*	*Attack rate per 1,000 population*	*All ages*	*Under 1*	*1 to 4*	*5 to 14*	*15 to 44*	*45 to 64*	*65 and upwards*
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas	67	—	1	1	3	16	34	12	13	19	13	21	10	23	0·153	—	—	—	—	—	—	—
Scarlet fever	351	—	72	263	8	8	—	—	95	27	115	70	62	104	0·801	—	—	—	—	—	—	—
Paratyphoid	2	—	1	—	1	—	—	—	1	50	1	—	—	1	0·005	—	—	—	—	—	—	—
Typhoid	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Meningococcal infection	7	—	2	1	2	1	1	—	7	100	4	1	—	2	0·016	—	—	—	—	—	—	—
Poliomyelitis (including polioencephalitis)	3	—	1	1	—	1	—	—	1	33	1	1	1	—	0·007	—	—	—	—	—	—	—
Pneumonia (excluding pneumonia of new born)	434	41	54	43	13	55	112	116	230	53	239	82	35	78	0·991	192	12	3	2	6	28	141
Malaria	2	—	—	—	2	—	—	—	1	50	1	1	—	—	0·005	—	—	—	—	—	—	—
Dysentery	912	44	284	319	68	136	36	25	79	9	209	429	197	77	2·082	1	—	—	—	—	1	—
Acute infectious encephalitis	1	—	—	1	—	—	—	—	—	—	—	1	—	—	0·002	—	—	—	—	—	—	—
Puerperal pyrexia* .. .. .. (corrected)	133 104	—	—	—	74	58	1	—	—	—	43	40	20	30	—	—	—	—	—	—	—	—
Ophthalmia neonatorum	8	8	—	—	—	—	—	—	—	—	2	1	1	4	—	—	—	—	—	—	—	—
Measles	2757	120	1630	970	28	8	1	—	39	1	247	1117	931	462	6·295	—	—	—	—	—	—	—
Whooping cough	237	18	103	112	2	2	—	—	14	6	65	75	47	50	0·541	—	—	—	—	—	—	—
Acute rheumatism (to 15 years) ..	35	—	1	31	3	—	—	—	25	71	13	4	6	12	—	1	—	—	1	—	—	—
Food poisoning	162	11	42	38	15	35	15	6	23	14	11	46	68	37	0·370	1	—	—	—	—	—	1

* 20 cases occurred at home of which 7 were subsequently removed to hospital. No deaths were directly attributed to puerperal pyrexia.

TABLE 7. Tuberculosis Notifications in Bristol

			CASES											
		Sex	*At All Ages*	*Under one*	*1–*	*5–*	*10–*	*15–*	*20–*	*25–*	*35–*	*45–*	*55–*	*65 and over*
1958—														
Pulmonary Tuberculosis														
New notifications		M	173	—	3	1	7	12	12	27	27	36	34	14
		F	98	—	4	2	5	13	17	21	12	11	5	8
Transfers from other areas ..		M	53	—	1	—	1	1	6	11	13	8	6	6
		F	28	—	—	—	1	—	7	13	6	1	—	—
Deaths mentioning Tuberculosis, not notified		M	4	—	—	—	—	1	—	—	1	—	2	—
		F	5	—	—	—	—	—	—	—	—	1	—	4
1958—														
Non-Pulmonary Tuberculosis														
New notifications		M	15	—	3	—	1	—	3	4	1	2	1	—
		F	21	—	1	—	1	2	3	7	2	1	—	4
Transfers from other areas ..		M	2	—	—	1	—	—	—	—	—	1	—	—
		F	5	—	—	1	1	—	—	2	—	—	1	—
Deaths mentioning Tuberculosis, not notified		M	1	—	—	—	—	—	1	—	—	—	—	—
		F	3	—	—	—	—	—	—	—	—	—	1	2
New Notifications—														
Pulmonary—	1957 ..	M	187	1	—	4	2	18	16	40	27	34	28	17
		F	114	2	1	2	3	15	24	37	15	10	4	1
	1956 ..	M	191	—	4	10	3	15	21	29	21	39	32	17
		F	113	—	4	4	5	16	20	25	19	12	5	8
	1955 ..	M	201	2	3	9	6	14	15	36	35	27	36	18
		F	147	—	3	3	3	26	24	47	21	8	5	7
	1954 ..	M	218	2	4	11	4	24	21	42	25	46	24	15
		F	168	—	2	9	11	34	27	45	24	8	2	6
	1953 ..	M	239	—	10	14	4	21	26	43	29	46	30	16
		F	185	—	7	6	11	20	38	42	29	17	7	8
	1952 ..	M	266	—	8	11	6	23	35	49	39	39	37	19
		F	214	—	6	5	16	41	36	61	29	8	7	5
	1951 ..	M	296	1	11	10	9	28	43	50	45	58	29	12
		F	208	—	9	10	9	31	51	47	18	15	10	8
	1950 ..	M	223	2	11	10	7	27	16	44	36	34	30	6
		F	205	—	9	12	9	40	48	43	19	12	11	2
	1949 ..	M	279	1	6	11	2	34	36	60	47	48	22	12
		F	199	—	3	5	11	36	42	52	21	8	14	7
Non-Pulmonary—														
	1957 ..	M	13	—	—	1	3	1	1	5	—	—	2	—
		F	23	—	2	3	1	3	1	5	3	2	1	2
	1956 ..	M	28	—	2	2	4	1	4	4	3	2	5	1
		F	20	—	—	1	2	1	—	6	3	3	2	2
	1955 ..	M	19	—	—	2	—	1	3	5	3	2	2	1
		F	27	—	3	4	—	7	5	3	2	1	1	1
	1954 ..	M	19	—	2	4	1	2	2	4	—	1	—	3
		F	30	—	2	—	2	5	6	11	—	—	1	3
	1953 ..	M	16	1	5	—	—	3	2	2	1	1	—	1
		F	22	—	2	1	—	6	5	3	4	—	—	1
	1952 ..	M	24	—	2	5	3	3	2	2	3	2	2	—
		F	30	—	6	3	—	1	3	6	7	3	—	1
	1951 ..	M	26	1	4	2	1	3	2	3	3	2	4	1
		F	25	2	1	3	4	3	4	6	—	—	—	2
	1950 ..	M	29	2	3	7	3	2	2	4	4	2	—	—
		F	22	—	6	1	2	2	2	3	5	—	1	—
	1949 ..	M	37	2	6	5	6	4	2	2	3	2	4	1
		F	34	1	2	6	2	6	3	6	5	3	—	—

TABLE 8. Tuberculosis in Bristol—Deaths

(*Registrar General's corrected figures*)

PULMONARY TUBERCULOSIS—

Year	*Sex*	*At All Ages*	*Under One*	*1–*	*5–*	*15–*	*45–*	*65 and over*
1958	M	22	—	—	—	2	9	11
	F	15	—	—	—	4	3	8
1957	M	23	—	—	—	3	9	11
	F	8	—	—	—	4	3	1
1956	M	23	—	—	—	4	13	6
	F	14	—	—	—	8	2	4
1955	M	38	—	—	—	11	19	8
	F	14	—	—	—	8	2	4
1954	M	41	—	—	—	12	23	6
	F	26	—	—	—	13	9	4
1953	M	61	—	—	—	24	28	9
	F	32	—	—	—	16	9	7
1952	M	62	1	—	—	20	31	10
	F	29	—	—	—	13	10	6
1951	M	83	—	—	1	27	43	12
	F	67	—	—	1	39	20	7
1950	M	89	—	1	—	28	47	13
	F	93	—	2	—	55	28	8
1949	M	108	—	1	—	43	52	12
	F	86	1	2	1	59	17	6
NON-PULMONARY TUBERCULOSIS—								
1958	M	4	—	—	—	4	—	—
	F	6	—	1	—	—	3	2
1957	M	2	—	—	1	—	1	—
	F	3	—	—	—	—	1	2
1956	M	5	—	1	1	1	1	1
	F	1	—	—	—	—	—	1
1955	M	3	—	—	—	1	2	—
	F	4	—	—	1	1	—	2
1954	M	3	—	1	1	—	1	—
	F	4	—	1	—	3	—	—
1953	M	6	—	3	—	2	—	1
	F	6	—	1	1	1	2	1
1952	M	5	—	—	1	2	1	1
	F	6	—	1	—	2	1	2
1951	M	10	1	2	1	3	3	—
	F	4	—	1	—	2	1	—
1950	M	14	1	2	1	2	7	1
	F	5	—	1	1	1	1	1
1949	M	15	—	2	4	3	5	1
	F	8	—	1	3	2	1	1

TABLE 9. Infant Mortality (*Corrected for transfers*)

Deaths 1958 (*Local figures*)

(*Occurring within Calendar Year*)

1957	*Cause of Death*	*Total 1958*	*First day*	*From one day under one week*	*From one week to four weeks*	*Total under four weeks*	*Total from one month to under twelve months*
—	T.B. respiratory	—	—	—	—	—	—
1	Meningococcal meningitis ..	—	—	—	—	—	—
—	Non-meningococcal meningitis ..	—	—	—	—	—	—
—	Acute poliomyelitis	—	—	—	—	—	—
1	Whooping cough	—	—	—	—	—	—
—	Measles	—	—	—	—	—	—
12	Pneumonia (four weeks plus) ..	12	—	—	—	—	12
2	*Pneumonia of the newborn ..	5	—	2	3	5	—
—	Influenza	—	—	—	—	—	—
—	Bronchitis	2	—	—	—	—	2
3	Gastro-enteritis (four weeks plus)	2	—	—	—	—	2
28	*Congenital malformations ..	39	8	4	10	22	17
16	*Birth injury	6	—	5	1	6	—
31	*Atelectasis	48	33	14	1	48	—
2	*Haemolytic disease of newborn ..	2	1	—	1	2	—
—	*Haemorrhagic disease of newborn	—	—	—	—	—	—
2	*Other diseases of early infancy ..	5	2	2	1	5	—
18	*Immaturity (unqualified)	9	4	5	—	9	—
10	*Other causes	12	1	1	—	2	10
126	TOTALS	142	49	33	17	99	43
	Rate per 1,000 live births registered in 1958	20·35	7·02	4·73	2·44	14·19	6·16
	Year 1957 TOTALS	126	48	36	11	95	31
	Year 1957 Rate per 1,000 live births registered ..	18·04	6·87	5·15	1·58	13·60	4·44

* Where there has been mention of immaturity— 1958—Bristol cases—66
During 1957—Bristol cases—56

Infant Deaths in:—			
	Hospitals	121	(including 3 in hospitals outside City area)
	Nursing Homes ..	1	
	Private Residences ..	20	(including 1 in P.Res. outside City area)
	Total	142	

PREVALENCE AND CONTROL OF INFECTIOUS DISEASES

Dr. D. J. Sheerboom
(*Assistant Medical Officer*)

N.B.—The figures all relate to the calendar year 1st January to 31st December, 1958.

Diphtheria

No confirmed cases occurred during 1958. This was the 9th consecutive year with no confirmed cases in the City and the 12th consecutive year when no deaths were attributed to the disease. Unfortunately the immunisation rate still remains low, but further information concerning this can be found in Section B of this report.

Dysentery

In 1958, 912 cases were notified. This was a very marked increase over the 1957 figure of 93. Again for the 10th year in succession, no deaths were directly attributed to dysentery.

The cases were of the following types:—

Sonné	655
Flexner	1
Amoebic	1
Not identified	255

The number of cases notified each month were:—

January	32	July	97
February	61	August	72
March	122	September	24
April	209	October	40
May	130	November	14
June	97	December	14

Once again the figures show the peak incidence in March, April and May.

The following table shows the age and sex distribution of cases:—

Age	*Male*	*Female*	*Total*
Under 1	30	16	46
1—1 & 11/12	40	34	74
2—4	108	95	203
5—9	132	104	236
10—14	42	41	84
15—19	9	18	27
20—29	26	60	86
30—39	27	50	77
40—49	13	16	30
50—59	8	12	20
60—69	4	14	18
70+	4	9	13
All ages	443	469	912

Again the highest incidence is in children under 10 years of age, but women do show a small peak in ages 20—29. This may be due to the fact that they are mothers of young children from whom they pick up the infection.

The single case of Flexner dysentery occurred in a young man who had just returned from Cyprus, and the case of Amoebic dysentery was in a man who had picked up the infection in Pakistan two years previously.

Although the figure of 912 is high, there is no doubt that it is only a fraction of the true incidence of the disease in the City. It is a most unsatisfactory state of affairs in these days of supposedly better hygiene and other health measures, that the incidence in the country actually appears to be rising.

Enteric Fever

No cases occurred in the City in 1958.

Erysipelas

Sixty-seven cases were notified during 1958. The figure remains fairly constant each year, namely 64 in 1957, 73 in 1956 and 64 in 1955.

Food Poisoning

The total number of cases notified during 1958 was 162, showing a small rise of 19 over the 1957 figure of 143. One death occurred in a man aged 70, admitted to hospital from outside the City. The organism was *Salmonella Typhimurium.*

The cases were of the following types:—

Salmonella infections		87
S. typhimurium	64	
S. heidelberg	14	
S. munchen	9	
S. reading	6	
S. enteridis varjena	3	
S. eastbourne	2	
S. thompson	1	
S. O'Katie	1	
S. derby	1	
Staphylococcal (toxin) food poisoning		2
No causative agent identified		59

As in previous years the *Salmonella* group of organisms were far and away the most common cause of food poisoning. *S. typhimurium* occurred most often, but this year *S. heidelberg* caused 14 cases as against only one in 1957.

The monthly notifications were as follows:—

January	4	July	19
February	3	August	20
March	4	September	25
April	5	October	9
May	24	November	10
June	24	December	15

The following table shows the number of persons affected in each outbreak.

Single cases	121
No. of outbreaks involving 2 cases	8
No. of outbreaks involving 3 cases	8

The age and sex distribution of cases was as follows:—

Age	*Male*	*Female*	*Total*
Under 1 year	8	3	11
1—1 & 11/12	9	2	11
2—4	16	16	32
5—9	13	8	21
10—14	10	6	16
15—19	2	4	5
20—29	10	8	18
30—39	6	10	16
40—49	6	6	12
50—59	4	6	10
60—69	0	4	4
70+	3	2	5
TOTAL	87	75	162

Once again no particular food proved to have been the source of infection.

There were only 2 cases of Staphylococcal toxin food poisoning as against 13 in 1957.

Puerperal Pyrexia

There were 133 notifications during 1958, a satisfactory fall from the 230 in 1957.

The following is an analysis of the notifications:—

Genital tract infections:	
(i) Site not specified	6
(ii) Perineal	1
(iii) Uterine	22
(iv) Pelvic	1
Urinary tract infections:	
(i) Site not specified	24
(ii) Pyelitis	1
Breast infections	23
General infections:	
(i) Septicaemia	1
Respiratory tract infections:	
(i) Unspecified	7
(ii) Bronchitis	1
Post-operative reactions:	
(i) after Caesarean Section	3
(ii) after blood transfusion	2
Thrombophlebitis	1
Infections:	
(i) Influenza	3
(ii) Dysentery	1
Miscellaneous	4
Unknown	32
TOTAL	133

Rheumatism (Acute)

Acute rheumatism occurring in persons under 16 years of age has continued to be a locally notifiable disease, a practice started in 1947. In 1958 there were 30 notified cases, with 1 death in a 12 year old.

Details of cases are shown in the accompanying table.

Tabulation by Age, Sex and Clinical Classification of Cases notified as Acute Rheumatism during the year 1958

Total — 37

Clinical Classification of Case Notified	*AGE IN YEARS* *0—4*		*5—9*		*10—14*		*15 & over*		*All Ages*		*Total Both Sexes (including * recurrences)*
	M	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	
1. Rheumatic Pains and/or Arthritis without heart disease	—	—	—	1*	3 1‡	2	1	—	5	3	8 (including 1* recurrence)
2. Rheumatic Heart Diseases (Active) (a) alone	—	—	—	1	1*	—	—	1	1	2	3 (including 1* recurrence)
(b) with polyarthritis	1	1	3	3 1†	2	4	—	1*	6	10	16 (including 1* recurrence)
(c) with chorea	—	—	—	1†	1‡	1	—	—	1	2	3
3. Rheumatic Heart Diseases (Quiescent) ..	—	—	—	—	—	—	—	—	—	—	—
4. Rheumatic Chorea (alone)	—	—	—	—	—	—	—	—	—	—	—
TOTAL Rheumatic Cases	1	1	3	7	8	7	1	2	13	17	30 (including 3* recurrence)
5. Congenital Heart Disease	—	—	—	—	—	—	—	—	—	—	—
6. Other non-rheumatic heart disease or disorder	—	—	—	—	—	—	—	—	—	—	—
7. Not rheumatic or cardiac disease	—	—	1	2	2	2	—	—	3	4	7
TOTAL Non-Rheumatic Cases ..	—	—	1	2	2	2	—	—	3	4	7

† 1 case with two symptoms. ‡ 1 case with two symptoms.

Scarlet Fever

There were 351 notifications, which was a slight increase on the 316 in 1957. Once again there were no deaths.

Tuberculosis

See separate report in Section B.

Whooping Cough

The number of notified cases was 237, a very marked fall over the 1,014 in 1957. There were no deaths recorded. Immunisation has continued throughout the year, but the percentage vaccinated is still low. Further information regarding immunisation can be found in Section B of this report.

Measles

Once again the usual pattern of notifications occurred, namely a tendency for epidemics to arise every other year. This year there were 2,757 cases notified as against 7,119 in 1957 and 349 in 1956.

For the third year running no deaths were attributed to measles.

Ophthalmia Neonatorum

Eight cases were notified during 1958 as compared with 15 in 1957. This is a most satisfactory decrease, but there should be no reason under modern conditions why the disease should occur at all. No gonococcal infections were reported.

Pneumonia

During the year, 434 cases were notified, a drop of exactly 300 over the previous year. The fall in cases is probably due to the fact that there was no epidemic of influenza in the latter part of the year. There were 192 deaths, directly attributed to pneumonia, and of these 141 occurred in persons aged 65 and over.

The figures do not include pneumonia in the new-born which are found under infant mortality figures.

Poliomyelitis

Only 3 cases were notified during 1958. This is one of the lowest figures for many years, and contrasts with the 98 in 1957. Of the 3, 2 were paralytic and one non-paralytic. No deaths occurred in any of them.

Vaccination against poliomyelitis has been proceeding all the while during 1958, and further details can be found in Section B of this report.

EMPLOYMENT IN THE BRISTOL AREA

The figures are estimates based partly on the number of national insurance cards exchanged in the quarter beginning June, and partly on returns rendered by employers of five or more workpeople, showing the numbers of insurance cards held by them. Where information is available that cards were exchanged at one Local Office for persons working in the area of another Local Office, the figures for the former Office have been reduced and those for the latter correspondingly increased in order to make the figures in all cases relate as closely as possible to the numbers working in each area.

Note: This statement has been prepared solely for the purpose of providing an approximate indication of the industrial structure of the area. The figures are not sufficiently precise to enable comparisons to be made in detail between consecutive years, and no significance should be attached to relatively small changes.

We are indebted to Mr. S. J. Murray, Manager of the Bristol Employment Exchange of the Ministry of Labour and National Service, for the following tables.

TABLE I

Estimated numbers of Insured Employees in the area of the Bristol, Avonmouth, Kingswood and Westbury-on-Trym Employment Exchanges at June 1958.

Industrial Group	*Males aged* 15 *and over*	*Females aged* 15 *and over*	*Total*
Vehicle Manufacture (including Aircraft)	28,676	3,615	32,291
Distribution	15,065	14,892	29,957
Professional Services	8,767	14,104	22,871
Food, Drink and Tobacco	11,660	8,955	20,615
Transport and Communication	18,297	2,067	20,364
Building and Civil Engineering	16,081	542	16,623
Paper and Printing	10,106	5,861	15,967
Miscellaneous Services	3,732	11,424	15,156
Engineering and Shipbuilding	11,722	2,352	14,074
*National and Local Government	6,341	1,899	8,240
Clothing	2,104	3,716	5,820
Insurance, Banking, etc.	2,886	2,166	5,052
Gas, Electricity and Water	3,721	656	4,377
Metal Manufacture	3,073	374	3,447
Chemicals	2,527	917	3,444
Wood and Cork (including furniture)	2,208	665	2,873
Other Manufacturing Industries	1,915	669	2,584
Metal Goods Manufacture	1,499	628	2,127
Agriculture and Fisheries	1,274	311	1,585
Non-Metaliferrous Mining Products	1,072	329	1,401
Textiles	723	660	1,383
Mining, etc.	804	48	852
Leather, etc.	343	161	504
Precision Instruments, etc.	258	88	346
Ex-Servicemen (not allocated)	61	—	61
Grand Total*	154,915	77,099	232,014

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* Most civil servants have their contributions paid without the use of cards and are, therefore, excluded from the figures. Also excluded are seafarers employed on foreign-going ships, whose contributions are paid in bulk.

TABLE 2

Totals of Estimated Number of Employees
Greater Bristol Area (including Kingswood)

Year		*Males*	*Females*	*Total*
1958	..	154,915	77,099	232,014
1957	..	158,316	77,186	235,502
1956	..	150,770	73,487	224,257
1955	..	146,767	72,905	219,672
1954	..	147,742	71,890	219,632
1953	..	145,931	68,972	214,903
1952	..	145,562	70,415	215,977
1951	..	155,764	72,129	227,893

THE WEATHER IN 1958

The comment and statistics have been provided by Mr. G. E. Clothier of the Department of Agriculture and Horticulture, University of Bristol, Research Station, Long Ashton.

A very dull year, with a cold, dry spring and persistently unsettled weather throughout the summer and autumn.

January was a changeable month, dull at first and stormy with widespread gales from the west from the 6th to 8th. Quiet, anticyclonic conditions during mid-month were followed by a week of very cold weather from the 20th to 25th, with frozen ground and some snow. A rapid thaw took place on the 25th. February was generally dull, wet and mild, but marked by several sudden and short-lived cold spells. Cold, dry weather was a characteristic of March. Snow showers were frequent at times. April was also dry and cold, with north-easterly winds persisting until after mid-month. A few days of summerlike weather marked the passing of April into May, but soon the west was affected by the first of a long series of depressions from the Atlantic which were to bring a changeable type of weather persisting throughout the summer and autumn until mid-October with no fine spells lasting more than a few days. Fresh south-westerly winds were much in evidence during May, reaching gale force at times on the 16th and 23rd. Some local flooding occurred on June 2nd, when over 2 inches of rain fell in 24 hours. Apart from a short fine spell from the 13th to 15th, unsettled, thundery weather was much in evidence. During stormy weather in the summer months, strong to gale force winds were recorded on July 13th, 26th and 28th, August 1st, 2nd and 15th, and rain was particularly heavy in the third week of the latter month. The second week of September was comparitively dry and sunny, but the remainder, though warm, was very unsettled. Frequent heavy rains occurred until mid-October, but from then on anticyclonic weather prevailed, providing the first settled spell of any length since April. Unsettled weather in early November was followed by quieter conditions, and during the second half of the month fog was frequent, often being thick and persistent. This type of weather covered the first week of December, but then wet, dull conditions returned. Frost and fog marked the Christmas period.

Meteorological Records, 1958

	Air Temperature (F°)							Rainfall (")			Sunshine (hours)		Soil Temperature at 09.00 G.M.T.			09.00 hrs. readings	
Month	Means A Max.	Means B Min.	Means of A & B	Diff. from normal	Max.	Min.	No. ground frosts	Total	Per cent of average	Most in a day	Daily means	Per cent of average	4"	8"	24"	Barometer (mb)	Relative Humidity %
January ..	45·7	33·6	39·6	—0·8	54	13	15	2·78	83	0·66	1·84	117	39·0	40·1	42·9	1012·4	92
February ..	48·8	37·5	43·0	+2·3	58	29	13	4·38	170	1·26	1·75	72	41·4	42·3	44·0	1012·5	87
March ..	46·8	33·8	40·3	—3·6	60	20	17	1·21	53	0·47	2·46	89	38·5	39·9	42·6	1012·4	83
April ..	53·7	38·0	45·8	—1·8	71	26	13	1·25	57	0·51	4·72	86	45·0	44·5	46·5	1019·6	78
May ..	60·5	45·7	53·1	0·0	75	41	1	3·58	139	0·76	6·33	99	54·1	53·0	54·7	1014·3	77
June ..	65·6	50·2	57·9	—0·6	74	41	0	3·63	164	2·16	5·64	81	60·0	60·6	60·1	1013·5	77
July ..	69·0	53·4	61·2	—0·3	78	42	0	1·99	64	0·40	5·63	88	63·5	62·5	63·2	1013·5	76
August ..	67·7	54·5	61·1	—1·1	76	46	0	3·07	83	0·33	4·12	69	62·6	62·1	63·0	1011·1	82
September ..	66·3	52·7	59·3	+2·2	77	42	0	5·47	168	1·33	3·80	81	59·1	59·3	58·8	1015·2	86
October ..	58·7	46·5	52·6	+1·5	62	35	4	3·18	85	1·07	3·24	99	51·8	52·9	56·6	1019·5	86
November ..	49·7	39·1	44·4	—0·4	60	28	11	2·42	66	0·49	1·38	73	44·4	45·8	47·8	1022·8	95
December ..	46·4	37·3	42·0	+0·6	55	29	16	3·66	103	0·57	0·82	56	40·7	41·5	44·5	1005·6	95
Totals or Means ..	56·6	43·5	50·0	—0·1			90	36·62	103		3·56	84	50·0	50·4	52·0		

Note the coolness of spring and summer months, and that only in January was sunshine above normal.
Sunniest day—June 24th—14·3 hrs. Wettest day—June 2nd—2·16"
Hottest day—July 19th—max. 78° (This was the lowest max. for any year since 1931)
Coldest night—January 24th—min. 19°

MATERNAL AND CHILD HEALTH, NURSING AND ALLIED SERVICES

Dr. Sarah Walker
(*Senior Medical Officer—Maternal and Child Health*)

Maternity Services

Just as this review is due to go to press, the Maternity Services Committee appointed in 1956, under the Chairmanship of Lord Cranbrook, has published its Report. The Committee recommend that at present, the tripartite structure of the maternity service should be retained and conclude that any drastic reorganisation of the maternity services alone, so as to place them under the sole control of either the hospital authorities, the local health authorities or some new body, would be to create more problems than it would solve. They consider that the real problem is one of co-operation and co-ordination between the three branches, the hospital, local authority and general practitioner services.

Many of us consider the Committee's conclusion to be a wise one, and we are of the opinion that separation of the domiciliary midwifery service from the other provisions made by local authorities for mothers and young children, e.g., the health visiting, home nursing, home help and clinic services, would be a very retrograde step.

It is interesting to note that many of the suggestions made in the Report have been pioneered in Bristol. The Committee recommend that local health authorities should provide premises and facilities for ante-natal clinics without charge to general practitioner obstetricians and to hospital medical staff holding outlying sessions. In Bristol, such facilities have been available to the obstetric consultants of Southmead and Mortimer House Hospitals, a scheme which started many years prior to the National Health Service Act. During the past six years, general practitioners have also, where-ever possible, been given these facilities. Over seventy general practitioners in the City now participate in this arragement. Bristol was the first local authority in the country to introduce such a scheme for general practitioners. The fact that not a single general practitioner, other than by reason of retirement or leaving the City, has ever opted out of this arragement, is evidence of the success and degree of co-operation achieved.

The Report recommends that a standard co-operation card should be provided for every expectant mother. Since 1952 a Personal Card has been used in Bristol, similar to the one suggested, this has proved to be extremely valuable.

On the question of place of confinement, the Report recommends that provision should be made for 70 per cent. of all confinements to take place in hospital. In 1958, 74 per cent. of Bristol mothers were delivered in hospital or maternity homes. The Committee consider that ten days should be regarded as the normal length of stay in hospital after delivery, although they do state that in an area where beds are not up to the level recommended, the Committee see no overriding objection to earlier discharge in carefully selected cases. In recent years, and particularly in 1958, many mothers in Bristol were discharged home early for nursing, as the following figures show.

Number of mothers confined in hospital in 1958 and discharged home early for nursing:—

From 1st—5th day inclusive	556
From 6th—9th day inclusive	727
Total	1,283

Our experience has been that provided home conditions are suitable and adequate help is available, many mothers like to return home early for nursing by a domiciliary midwife. The parentcraft clubs in the City and their associated ante-natal exercise and relaxation classes, continue to make an important contribution to the health and well being of the expectant mother and her baby.

Since July 1958, the Department, at the request of the Ministry of Health and with the co-operation of the hospitals, have been carrying out a special enquiry into perinatal deaths in the City.

Domiciliary Service of Midwives

Year	*Bookings*	*Deliveries*	*Home Investigations*	*Follow-up of Patients discharged early from Hospital (under 10 days)* No.	*Visits*
1958	2,674	1,869	1,833	1,283	10,628
1957	2,350	1,698	1,803	595	6,058
Increase	324	171	30	688	4,570

Miss D. Gearing, Supervisor of Midwives, reports:—

Once again the work of the domiciliary midwifery service has increased, as figures above show, while the number of full-time staff has remained the same.

Although we continue to train pupil midwives on the district, very few decide to take up work subsequently in the domiciliary field. This gives rise to concern, since our staff are ageing and some are near retiring age.

We now have four part-time midwives working on a sessional basis and their help has been invaluable; during holidays and periods of sickness the work could not have been carried on without them.

I have been very concerned at the high rate of sickness among the staff during this year, the highest since 1947.

We have added four Trilene apparatus to those already in use, bringing the total to thirteen.

In spite of increased work all midwives, including part-time staff, have continued to take an active part in teaching in the parentcraft clubs.

During the year Miss Pugh, Deputy Supervisor of Midwives, has given talks to school leavers, and instruction in midwifery first aid to ambulance staff and Civil Defence personnel.

Seven midwives and the Supervisor attended post graduate courses during the year.

Several midwives from abroad have spent some time in the Department studying our administration and the clinical services provided. A senior midwife from Singapore spent three months with us before returning to her own country to organise a Domiciliary Service.

The work of the premature baby midwives has also increased. They dealt with 183 cases as against 146 last year. Of these fifty-four were born at home and nursed at home, eighteen were born at home and transferred to hospital and 111 who were born in hospital later returned home to be nursed by the premature baby midwives.

Sub-Fertility Clinic

Investigation and treatment of sub-fertility is undertaken by a medical team, Mr. E. M. Edwards, Consultant, Dr. Norma Boxall and Dr. Irving Bell.

Dr. Norma Boxall reports:

The family doctors continue to make good use of this clinic, and in addition, we have investigated a number of cases referred by Professor Lennon. Mr. E. M. Edwards, Consultant for the Service, has undertaken the operative procedures of the investigations.

The following cases have been dealt with at the sessions held for women:

Number of new cases . .	186	
Number of old cases . .	1,670	
Number of pregnancies . .	66	(= 36·6 per cent of all new cases seen)

This year we have discovered three fresh cases of pelvic tuberculosis, which is 1·6 per cent. of new patients seen, and, for the second consecutive year, compares favourably with the old figure of approximately 5 per cent. With one exception, there have been no relapses.

The trial of relaxation classes for the tense, nervous type of patient proved so successful, that we propose to continue to ask Miss Hogg, the Physiotherapist, to undertake this work.

Patients with marital problems apart from, or associated with sub-fertility, continue to request our help.

Dr. Irving Bell who is the medical officer for the male sub-fertility clinic reports:

There were fewer new cases seen during 1958 than in previous years—the number was 104 and attendances totalled 251. The number of husbands referred from the female subfertility clinic declined because of the diagnostic value of the Huhner test carried out there.

An analysis of the new cases referred indicates the continued use made of this clinic by general practitioners and others:

General practitioners	47·1 per cent.
Female sub-fertility clinic	29·8 ,, ,,
Marriage Guidance Clinic	10·6 ,, ,,
Hospitals and self requests	12·5 ,, ,,

It may be of interest to note at this time that the number 1,779 recorded on the last clinic card of the year showed that 1,779 men have been given the full clinical examination since June 1944 when the clinic was started.

Child Welfare Services

Child welfare sessions are now held at thirty-four centres in the City. Two centres were closed during the year, the Blaize and Dovercourt Road clinics, the number of young children in both areas had declined and it was felt that neighbouring centres would cover existing needs.

During the year, the Anticipatory Guidance Service, a family service designed to try to prevent mental ill-health and operating mainly in the maternal and child welfare field, has extended its activities. An account of the work of this service is given by Dr. Lumsden Walker, on page B 36 of this Report.

The work carried out by the clinic for young backward children, started many years ago, and described in previous reports, continues, but has now been linked with a more comprehensive service described by Dr. H. Temple Phillips and Mr. F. Morton in the Mental Health Services Section of the Report.

The need for routine screening of every young child who has suffered from any condition which might be associated with loss of hearing has led to the development of a Hearing Assessment Clinic which is described below by Dr. Gibb and Mrs. Stephens.

Hearing Assessment and Training of the Young Deaf Child

Dr. Helen Gibb and Mrs. Joan Stephens report:

Until October, 1957, the diagnosis and treatment of deafness and partial deafness in Bristol had been carried out at Bristol General Hospital and the Bristol Child Guidance Clinic.

The otologist, psychologist and teacher of the deaf met as a team at monthly intervals for assessment of hearing losses in children. It was felt that there was a need for a wider survey and a more intensive training of the pre-school child who was found to have a hearing loss. Miss Sharwood, Head Mistress of Elmfield School for the Deaf, was unable to continue as a member of the team owing to pressure of work, and Mrs. Joan Stephens, Teacher of the Deaf, was appointed. Mr. Walter King, senior assistant psychologist, took the place of Mr. R. V. Saunders, senior psychologist, and Dr. Helen Gibb, medical officer, joined the team. The Hearing Assessment Clinic was placed under the clinical direction of Mr. H. D. Fairman, E.N.T. Consultant.

The work commenced in October, 1957, at Mortimer House Clinic, Clifton, but in March, 1958, accommodation was found at Central Health Clinic and this move facilitated the administration and co-ordination of the work. This was re-organised to include auditory training as well as diagnosis, psychological assessment, and educational placement of the deaf and partially deaf child. At the present time, four sessions per week are held at Central Health Clinic. Two are for auditory training by Mrs. Stephens and two for observation and investigation by Mrs. Stephens and Dr. Gibb. A consultant session is held on the fourth Wednesday of every month under the direction of Mr. Fairman. The major part of the work done concerns the pre-school child. Some of the children diagnosed previously as educationally subnormal or emotionally disturbed have been found to have a partial hearing loss which has limited their ability to gain information as the normal child does, and caused frustration, temper tantrums and alleged disobedience.

During 1958 130 children attended for hearing tests; of these 85 were under five years of age.

The children are referred from various sources. Of the 33 children taken on for auditory training, 18 were referred by E.N.T. consultants, 10 from Medical Officers and 2 from the Head Mistress of Elmfield School for the Deaf; 2 from psychiatrists and 1 from a health visitor.

Hearing loss is not always obvious because of the variations in degree of partial deafness and also variations in types, *e.g.*, conductive, perceptive and acquired. Sometimes the children have much indistinct chatter, popularly described as "Horace-talk." This amount of chatter is misleading for it can often mark a fairly severe degree of partial perceptive hearing loss. The child who produces this pattern of speech often misunderstands instructions and normal conversation. *E.g.*, Paul, aged 4½ years, who was told, "Say 'Bye-bye'," replies with the nursery rhyme, "Baa, Baa, Black Sheep." Children become confused and disturbed and thus a diagnosis of low intelligence or emotional disturbance is frequently made.

From examination of these children it has become very clear that many could be diagnosed earlier, if the group of children known to be at risk were examined for hearing loss as a routine.

Prematurity, jaundice, birth injury, haemolytic disease of the new-born, familial hereditary history of deafness, meningitis treated with streptomycin have been the main contributory factors in the group found in the past year. Any children with such a history, or who have delay in development of speech or have very indistinct speech should be examined, as training becomes more difficult when emotional problems are added to partial deafness.

Of the children receiving auditory training during the past year the ages when diagnosed have been as follows:

Under 1 year	2	Under 5 years	8
,, 2 years	5	,, 6 ,,	4
,, 3 ,,	6	,, 7 ,,	0
,, 4 ,,	5	,, 8 ,,	3

Of these cases, 15 children had prematurity with jaundice, 2 had haemolytic disease of the new-born with transfusion, 6 were congenital (2 had familial history of deafness, 1 was a Treacher Collins Syndrome), 2 had anoxia at birth, 1 was due to maternal rubella in pregnancy, 1 had meningitis with streptomycin, 1 birth injury with cerebral haemorrhage, 2 otitis media, 1 toxaemia of pregnancy, 1 cause unknown (child was adopted).

It will be seen from these figures that the majority of these children have not been diagnosed until after two years of age. This is late to make a diagnosis of hearing loss, in view of the fact that most of the children had a history indicating the need for investigation of hearing.

The aims of auditory training are first to get the child to become aware of sound and its meaning. This also gives him a sense of being able to understand and be understood, giving him confidence to go forward to the next step, which is, to make the child more aware of the difference in sounds and how they can be applied to objects and people. This cannot be achieved without a rich and satisfying background of experience and ideas. To attempt to do this in one or two visits a week to the teacher of the deaf is impossible. For the pre-school child, home life and its accompanying interests can supply these experiences much more satisfactorily than any other environment. Many mothers with young deaf children are completely lost, however, as to how they can make a satisfying relationship with their child. Hostile feelings arise on both sides because of inadequate communication. With training to the child and instruction to the parent a basis of understanding is built up. Jane who attended first when she was two years and eleven months spent the first two sessions, unable to leave mother's side, but was at the same time very aggressive towards mother, as was mother to Jane. After attending for training for two months, she became a smiling, co-operative, happy child, who quickly developed socially and verbally. The mother's anxiety was relieved as soon as a diagnosis was made and treatment commenced. The child began to use speech and language. Now Jane attends a Nursery School, wears a hearing aid and chatters incessantly.

The children receiving auditory training have all been supplied with hearing aids which they accept very well. Nineteen have Government transistor aids and the remainder have commercial hearing aids. For children with high-tone hearing loss it is felt that the commercial aid gives a greater benefit in selecting and amplifying the high tones in which their hearing is defective.

A few very interesting cases have been observed. As in the cerebral palsy clinic children with cerebral palsy were found to have impaired hearing so a group of children attending the Hearing Assessment Clinic have been found to have a mild degree of cerebral palsy of the athetoid type. These all give the same history of jaundice at birth. The parents complain of them as clumsy and fidgety. This may account for some of the poor manual ability of some partially deaf children. Multiple handicaps of this type add greatly to the difficulties to be overcome by the child, but when these are properly understood by parents and teachers, much can be done to help the child both educationally and socially.

Dental Care

Mr. J. McCaig, Senior Dental Officer, reports:

Dental treatment is available for expectant and nursing mothers. They are referred to the dentist from the ante-natal clinics and by health visitors. If the mothers are found to require treatment, appointments are made and the work carried out as soon as possible. Emergency treatment is available at all times.

Pre-school children are brought by their parents to the clinics, having been referred by their doctors, health visitors or doctors attending the clinics. Some parents bring the pre-school children to the dental inspection at the school when the school entrants are being dentally examined for the first time. Parents are invited to this dental inspection and often take the opportunity to bring the younger children with them.

No. of mothers inspected	810
No. of mothers treated	761
No. of treatment sessions	496
No. of fillings	1,108

Staff

The number of full-time staff at the end of the year was eleven, including the Principal School Dental Officer, part-time dental surgeons giving sessions equivalent to 1·8 dental officers.

Dental Technician

Work carried out in the dental laboratory was as follows:

No. of full dentures	117
No. of partial dentures	84
No. of repairs	9

Oral Hygienist

The Oral Hygienist gives talks to the mothers at the ante-natal clinics and at parentcraft meetings. The Centre Superintendents speak highly of the interest taken in dental health by the mothers attending the clinics, when contact with the Hygienist has been made.

No. of scalings carried out for mothers	425

More detailed statistics relating to dental treatment appear at the end of this section.

Day Nurseries

The seven day nurseries continue to provide an invaluable service for the welfare of young children who require care for health or social reasons, either as a short or long-term arrangement.

Early in the year, a special bus was provided to bring children to Coronation Road Day Nursery from the outlying estates of Hartcliffe and Withywood. This has helped to provide for the most urgent cases—there are fifteen places on the bus, but there is still a need for day nursery and nursery school provision in this area, which has a large pre-school age population.

The average daily attendances and numbers on the registers for the year 1958 are given below:

Accommodation	*Number on Registers*	*Average Attendance*
290	315	231

The attendances in 1958 represent 80 per cent of the number of places available and 73 per cent of the numbers on the registers. These figures would have been higher but for the inevitable periods of infection at the nurseries, which are responsible every year for a high proportion of the absences. On the register at the commencement of 1958 were 333 children. Admissions during the year were 386, which means that during the year 719 children and their families were able to benefit from the services which the day nurseries can offer.

Health Visiting Service

Miss L. M. Bendall, Chief Nursing Officer, reports:

This has been another year of steady progress in the health visiting field, although a shortage of staff has restricted development to some extent.

In presenting this report it must be remembered that the health visitor is also the school nurse, but reference is confined to her activities as a health visitor. The work of the health visitor has followed its usual pattern and is divided into two parts: (1) Home Visitation; (2) Work in clinics, nursery schools and classes.

(1) *Home Visitation*

Although the health visitor is concerned with the health of the family as a unit, her chief responsibility still continues to be the visiting of mothers and young children in their homes. Each health visitor has a district with a case load of "under fives," and while she aims to keep all children under supervision, it is accepted that she practises selective visiting particularly in cases of failure to make progress or where there is partial or complete neglect.

The operation of Area Case Committees in which health visitors meet and discuss cases with other interested workers has proved of great value, as have also the Case Conferences held with psychiatrists and psychiatric social workers.

Much valuable work has been carried out by health visitors in connection with the poliomyelitis vaccination campaign during 1958. They have given intensive advice in the homes which has undoubtedly contributed to the success of the campaign. They have also followed up absentees.

(2) *Work in clinics, nursery schools and classes*

The health visitors are responsible for the operational organisation of clinics and in addition give advice and health education in both ante-natal clinics and infant welfare clinics.

Group teaching is carried out with the help of films and films strips. The parentcraft course continues to be a regular feature for mothers during the ante-natal period. This course consists of seven lectures and demonstrations to expectant mothers, with a final lecture to which the husbands are invited. The health visitor, nutritionist, midwife and sometimes the doctor, all co-operate in giving these lectures.

Wherever children are gathered together in groups it is advisable that they should be kept under supervision from the point of view of infection and cleanliness, and treatment of minor ailments. This is done in nursery schools and classes by the health visitors who also attend the medical inspection with the doctor.

In addition to all these duties the health visitors frequently give talks on the various aspects of their work to women's organisations throughout the City and to parent/teacher associations.

A certain amount of specialisation in the health visiting field continues and although there are two schools of thought on this subject there is no doubt that the specialist health visitors are doing a splendid job.

Specialisation is as follows:

Blindness Prevention

Mrs. J. Lillington, health visitor, who has spent half her time in this field for several years, was promoted to the post of Centre Superintendent in December, 1958, and this is therefore her final report.

"The report for 1958 on the work of prevention of blindness is, of necessity, much on the same lines as in previous years. Although advances in treatment are made by means of new drugs and new surgical procedure, patients' reactions to the threat of blindness remain the same, and they need sympathetic understanding and much encouragement. As, for instance, when an intelligent girl found difficulty with her school work and was getting into trouble for being clumsy. After seeing the ophthalmic surgeon the fact had to be faced that she was suffering from an irremediable form of inherited blindness. All possible help was given to the parents to enable them to keep up the child's morale, with the result that she has settled in at the Westbury School for the Blind and is doing extremely well.

The work of the prevention of blindness officer can be divided into three parts:—

(1) Liaison between the Health Department, the Eye Hospital, and the Home Teaching Service for the blind. Arranging the details necessary for the smooth running of the registration clinics. It was decided this year that copies of the Blind Registration Form (BD 8) should be sent to the patient's general practitioner. This has improved liaison, and cases are now being referred by the general practitioners. The number on the prevention of blindness register is 318.

(2) The follow-up of patients advised to have further treatment, particularly for glaucoma and cataract extraction. The patients, mostly elderly, are often very apprehensive and too nervous to agree to treatment immediately and this is where the health visitor can do much to help.

(3) The service given by the health visitor in personally taking nervous and handicapped patients to the Eye Hospital for out-patient treatment is very much appreciated. It is time consuming work, but it covers an urgent need in obtaining treatment of a preventive kind which could otherwise be neglected."

Infectious Diseases

There has been, over a long period, a gradual fall in the incidence of serious infectious diseases, and Miss M. Hatfield, the health visitor for infectious diseases, has now accepted the Blindness Prevention work as part of her duties. In connection with Infectious Diseases, Miss Hatfield reports as follows:

"My work consists almost entirely of home visitation to patients suffering from notifiable diseases. Advice is given to relatives and guardians of patients on prevention and control of infection, conduct of contacts and school exclusion.

I work in liaison with public health inspectors in cases of food poisoning and dysentery in young children and continue to follow up cases of poliomyelitis patients with permanent disabilities. I carry out a fair amount of health teaching in connection with infectious diseases in the infant welfare clinics around the City and also to various women's groups."

Care of Premature Babies discharged from Maternity Hospitals

Miss E. Room, health visitor, reports:

"Looking at the 1957 Annual Report it is difficult to think of anything new (except the yearly totals) to report. It is interesting to note that the number of premature babies referred in 1958 to the health visitors specialising in this work has been almost identical with those dealt with in the previous year. The proportion of twins in the premature cases has also remained fairly constant.

During the year 539 cases received domiciliary care following discharge from hospital or domiciliary midwife's care, 413 of these being within the City boundary and 126 within the areas of South Gloucestershire, or North Somerset.

There is close co-operation between the general practitioner and district health visitor and much of the successful work which has been accomplished has been made possible by the team spirit which has been achieved.

There is no doubt that the service is appreciated, many of the mothers being a little bewildered by the task of having to deal with a small baby on whom extra care has to be lavished. A helping hand and judicious advice at this time inspires confidence and helps in securing the maximum co-operation towards achieving a happy ending to the case."

Ancillary Nursing Service

Clinic Nurses

At the end of 1958 there were five full-time clinic nurses and forty-five part-time. These nurses are all State Registered, and carry out routine duties in the various clinics around the City, thus relieving the health visitors for their more specialised duties.

I would like to make special mention of the invaluable work they have carried out in 1958 in connection with poliomyelitis vaccination campaign in schools, clinics, factories and shops.

Tuberculosis Visitors

The establishment consists of a sister-in-charge and nine tuberculosis visitors. There was one resignation during 1958 but it has not yet been considered necessary to replace her, although the vacancy still remains in case of any increase in the work.

The tuberculosis visitors divide their time between home visitation and work in clinics and schools assisting the doctor with Mantoux tests and the giving of B.C.G. vaccination.

Physiotherapists

An establishment of three full-time and two part-time physiotherapists has been maintained during 1958.

Their work consists of artificial sunlight treatments, remedial exercises and massage in connection with pre-school children, school children and expectant mothers.

One of the full-time physiotherapists carried out an extensive programme of relaxation classes for expectant mothers in the various ante-natal clinics around the City.

By arrangement with the Welfare Services Department, all these three full-time physiotherapists spend a limited amount of time visiting and carrying out treatment in the old people's homes in the City.

Dental Attendants

A full establishment of fifteen has been maintained during 1958. Fourteen of these work with the dental officers, and one specialises in orthodontics.

Clinic Helpers

A full establishment of twenty-one has been maintained during 1958. They carry out various duties in the clinics, including treatment of scabies, cleansing verminous heads, assisting in treatment of minor ailments, sale of welfare foods, needle and syringe service, and escorting children to and from residential schools and nurseries.

Clinic Assistants

This scheme continues to flourish. Girls anxious to bridge the gap between school leaving and entry into hospital for training are accepted as clinic assistants to assist the nursing staff.

A very high percentage of these girls enter and complete their nursing training and it is interesting to record that quite a number return to the Department as members of the nursing staff.

Night Watcher Service

This service completed its second year in December 1958 and below is a comparison of figures over the two year period.

1957	*Nights worked*	*1958*	*Nights worked*
1st Quarter	103	1st Quarter	302
2nd Quarter	91	2nd Quarter	233
3rd Quarter	142	3rd Quarter	242
4th Quarter	244	4th Quarter	260
Total	580	Total	1,037

It is interesting to note the development of this service. It has almost doubled during 1958, although it has still not developed to its fullest capacity within the present establishment. The present establishment is the equivalent of five full-time night watchers, i.e. thirty-five nights per week, or 1,820 nights per year.

We had at the end of 1958, a total of eleven night watchers, all mature, kindly women, particularly suitable for this type of work and willing to work between two and five nights a week.

This night watcher service is one of the most valued and compassionate services we operate and there is no doubt that this is a service which is appreciated by both patients and their relatives.

There has been no difficulty up to the present in obtaining suitable persons for this work.

Health Visitor Training

Miss J. Sangster, Principal Health Visitor Tutor, reports:

The last health visitors' training course of 6 months duration finished in April 1958. Nine students completed the course, six of them were sponsored by Bristol Corporation and are now working in the City.

In recent times this course has proved too short to meet the needs of the changing and expanding work of the health visitor. The present course which started on 2nd October, 1958, will last for one academic year, and will be completed in July 1959. There are twenty-three students, twenty-one of them have agreed to stay in Bristol when they finish training; of the remaining students, one will return to Devon and one to Exeter.

Miss P. M. Tarbuck returned this summer as Assistant Health Visitor Tutor, after obtaining her Health Visitor Tutor's Certificate with distinction in practical teaching at the Royal College of Nursing.

The lengthened course and the addition of a second tutor has enabled the training to be brought up to date and it has been extended in the following ways:

1. *Health Education*

In their training as nurses the students have had considerable experience in talking to and advising individuals. During the health visitors' course they need to be taught, and to be given the chance to develop the ability to express themselves more fluently. They now have more opportunities for practical instruction in group teaching and in guiding group discussions.

2. *Mental Health*

The health visitor needs a sound knowledge of the art of interviewing and of being a good listener. She needs to be observant as she may be the first person to see a situation which may cause strain or to detect early signs of strain. She may be able to give help herself but she must also recognise when to call in other specialised workers. The lectures which have been given in the past on mental health are now strengthened by case discussions and seminars and also by informal discussions with a psychiatric social worker.

3. *The Welfare of the Family*

In order to help families to the full, particularly families in difficulties, the health visitor must have a knowledge of other workers, their methods and ways of approach. Valuable interchange of ideas is being gained by joining with the Social Studies students at the University for a seminar each week. The students are also being helped to consider the family as a whole by the detailed study and discussion of some of the families they themselves have visited.

4. *Adjustment to public health work and work in the community*

"The necessary obedience of the student nurse to those in authority has produced an attitude difficult for some nurses to shake off when undertaking health visitor training." (Working Party Report para. 348.) This attitude causes the student to be reticent in expressing her own opinions. As she has been given little opportunity to do so in her past experience, she needs time and opportunity to adjust herself. The longer course gives time for private study, for tutorials and for group discussions and these are some of the ways in which the ideas of the "nurse" could be changed to those of the "health visitor."

These are some of the ways in which the training has been brought in line with present day needs. The work of the health visitor is never static but is constantly changing and progressing according to the needs of the community and in order to fit the student for this work the training will need continual review and re-adjustment.

Clinic Assistants

Girls of sixteen to eighteen who are working in the Department as Clinic Assistants have continued to attend classes. It has been possible to extend the time so that they attend for one morning each week for three terms. This has made it possible to give them a sound knowledge of "Personal and Communal Hygiene" which is part of the Preliminary Examination of the General Nursing Council.

Student Nurses

Lectures on Public Health continue to be given in hospitals in the City where students are preparing for the final examination of the General Nursing Council.

Home Nursing Service

The Bristol District Nursing Association acts as the agent of the Local Authority in providing the home nursing service for the City.

Miss G. M. Grazier, Senior Superintendent, reports:

Staff: 93 including:

Administrators	6
Queen's Nurses (including 3 males) ..	65
Student Queen's Nurses	5
State Registered Nurses	4
State Enrolled Assistant Nurses	10
Part-time Nurses	3

Number of cases nursed during the year 7,938. Total Visits 264,803.

The past year has not brought about spectacular changes and yet changes have developed.

There has been a marked decrease in the number of visits to patients suffering from tuberculosis, but an increase to those suffering from the terminal stages of carcinoma and for this type of case particularly we have endeavoured to maintain the services of a night-nurse for the giving of late night injections.

Approximately 75 per cent. of our total number of visits are made to people over the age of forty-five years. After this age the consequence of stress, wear and tear lead to the more protracted illnesses and so many people suffer from diseases of the heart and arteries and respiratory conditions. The new drugs in use for these conditions are changing the pattern of the nursing care required. Our older patients for the most part are encouraged to partake in Club and Church activities and other social amenities available and are kept ambulant and this has meant a revision of the use of the State Enrolled Assistant Nurse on the district. It has been seen that over the past months part time work only is needed for this group in the mornings, and alterations are being made accordingly.

"Group Relief"

The introduction of "Group Relief" within the staff, has relieved considerably the problem of more adequate coverage for holidays and sickness and the patients benefit by not having frequent changes of nursing staff.

We have continued to encourage mobility by means of transport allowances and have proved that this not only enables more work to be done, but what is equally important, conserves the energy of the nurse and is a protection from weather hazards.

Observation Rounds

Some 194 student nurses from the Bristol Royal Hospital, Southmead, Homoeopathic, and Children's Hospital accompanied staff on a morning round and an intelligent interest was shown in the social background of the patient.

Six Doctors taking the Diploma of Public Health Course also visited patients with members of the staff.

Training

Fourteen Queen's Nursing Students were trained during the year.

Lectures

Lectures were arranged throughout the year for the staff on such subjects as Human Relationships, Mental Health, and Home Safety.

We are particularly grateful that as a result of continued excellent team work by the health visitors to the aged, the Home Helps, and the Linen Loan and Laundry Service our work is facilitated.

Physiotherapy in the Maternal and Child Welfare Service

Miss B. S. Hogg, Physiotherapist, reports:

Ante-natal Classes

There has been a good attendance throughout the year at the relaxation classes which are held in conjunction with the parentcraft classes. We are emphasising teaching on the avoidance of strain in housework and maintenance of good posture; general relaxation and its application to labour and life in general—physically and mentally; and also post-natal preparation—the importance of exercises in the prevention of post-natal complaints due to muscular weakness.

These additional factors help the expectant mother to view her ante-natal preparation as valuable to the whole of her everyday life.

Interesting discussions arise during the "break" for a cup of tea with the midwife or health visitor present as well. These times prove very valuable for such discussion.

Post-natal

Some patients are referred for post-natal exercises and find benefit from them. Those patients with extremely weak muscles are sent for Faradic stimulation in addition to exercises. Some patients with pelvic inflammation receive short wave treatment. These treatments are a new trend in the service.

Unmarried Mothers

Ante-natal relaxation classes in a shortened form have been started at Snowdon Road Mother and Baby Home when there is need: i.e. when the girls have not already attended a course prior to admission.

Ante-natal relaxation classes have commenced on Monday evenings in association with the special session at Central Clinic. Several girls have been seen and received the full shortened course; others have continued when entering Snowdon Road Home. They appreciate the teaching they receive.

Sub-fertility

The relaxation treatments are continuing with some successful results. It has now been decided to lengthen the number of treatments and to continue this treatment as long as possible.

Pre-school Child

Several children of this age group with upper respiratory infections are receiving benefit from courses of short wave treatment, postural drainage and breathing exercises, which they really enjoy practising after the first few attendances. The parents seem to improve and lose their anxiety as the child finds relief, eats and sleeps better and becomes more contented.

Home Help Service

Miss M. R. Epplestone, Home Help Superintendent, reports:

During the year 3,140 families were supplied with a home help compared with 2,542 during 1957.

The number of home helps employed on 31.12.58 was 589 (nine full time and 580 part-time).

The following types of cases have been helped:—

(a)	Maternity (including home confinements, expectant and nursing mothers)	171
(b)	Chronic sick, aged and infirm	2,568
(c)	Tuberculosis	72
(d)	Others	329
		3,140

Emergency Cases

Most emergency cases are referred direct to the Department by general practitioners and health visitors, thus saving a great deal of time as the correct diagnosis or details can be given at once.

With the help and co-operation of the District Nurse and a home help many mothers have thus been able to stay at home with their families, who otherwise would be parted—thus saving the cost of a hospital bed and places in a children's home.

In one particular case where the mother had deserted—a full-time home help was sent, the husband waiting for the home help to arrive before going to work and arriving home in time to release her from her duties in the evening. There were four children, whose ages ranged from eight years to eighteen months. One of these was unable to talk properly although nearly five. Due to the patience and affection given by the home help, this little boy had greatly improved and when the home help left was talking quite well.

Home help has been given where the mother has gone into hospital to have her baby and where there are other children to be cared for—the great advantage being that the home help is a housekeeper and capable of acting on her own initiative. What greater praise could be given than when the mother says, "it was wonderful to come home and find everything so spick and span and the children happy. I shall never worry about leaving them with a home help again."

Where the full cost of the service is being paid by the patient the home help is only required for a minimum time but where the cost is much reduced there is a tendency to exaggerate their ill health in order to keep the home help. It is here that the general practitioners are so helpful and I should like to take this opportunity of thanking them for their willing co-operation at all times.

Aged and Chronic Sick

This panel forms the largest and saddest part of the Home Help Service as the demand is always in excess of the supply. Daily help in many cases must be provided for the elderly bedridden and house bound and this presents a serious problem to the Home Help Service, especially during the winter months. Each home help has an average case load of five people.

All is well while the home help continues to visit these homes but unfortunately they too are subject to the ills of the flesh and although many of them continue when not fit, do so only because there is no one else to get anything "for the poor old soul".

Owing to the restricted establishment of home helps, it is only possible to give a minimum amount of help, but it is hoped that in the not too distant future, an increase in establishment may result in an expanded service.

Tuberculosis

The number of cases requiring home help because of tuberculosis has increased this year to seventy-two as compared with sixty-nine in 1957. There have only been three new cases this year.

Others

Included under this heading are the acute sick and special families. Two specially selected home helps, one full-time and the other part-time, have been placed with a problem family where the mother, a young girl, had two sets of twins rather quickly and very little idea of housecraft or baby training. The home help is teaching the mother to cook and encouraging her to budget wisely as well. Full-time home help has now been withdrawn but part-time continued.

In the second case the patient had had a mental breakdown and after treatment in hospital was allowed home provided she had a home help. There were five children, all boys, whose ages ranged from twelve years to six years. The family are now all together and doing well.

There has been little change in the pattern of the work during the year although the section has not been static.

It is hoped to expand the Service during 1959, which would provide a more generous and flexible service to the aged and chronic sick, resident home helps to cover while the mother is in hospital or convalescent home, and also to give help in the case of exhausted mothers and so prevent break up of families. It would also be useful to establish the home help at a confinement in the latter stages of labour and so avoid the time gap of the birth of the baby and the arrival of the home help.

Recruitment

Recruitment during the last three months of the year has been good. Many of the part-time applicants are willing to do full-time in emergency. In the coming year it is hoped to start a course of training for selected home helps to prepare them for the many difficulties and frustrations they are likely to meet as their field of work becomes wider.

Case Workers

The three case workers continue to be very busy and I am indebted to them for their helpfulness and patience in dealing with the chronic sick and aged under sometimes extremely difficult conditions.

Special Families

Work with special families is undertaken by the district health visitors, and supported by a special team consisting of Dr. C. Hopkins and four health visitors who devote full time to this work. In addition a Family Service Unit operates in the City, as an agent of the Health Committee.

Dr. C. Hopkins, First Assistant Medical Officer reports:

With the appointment of Sister E. P. Tarbuck in August the team of four health visitors was completed.

In September, Sister M. D. Evans was granted leave in order to attend a course in Psychiatric Nursing at Roffey Park Rehabilitation Centre. During her absence Sister J. G. Lane of Knowle Clinic undertook special duties in her place.

On the 31st December, 1958, there were 798 families on the Special Register, 155 of these being in the care of the special health visitors.

Much of the work has streamed from the Co-ordinating Committees which have met regularly at monthly intervals throughout the year, and the workers sitting on these committees are becoming skilled in their use of co-ordination. They find that the special conference is rarely necessary.

The most weighty problems of the year have been encountered on marital questions, on the question of children being received into care, on budgeting and housing and also with mentally disabled parents.

As unemployment increased it became more important for the fathers to remain at work in preference to staying at home to care for the children during the mother's absence, or incapacity. This, in turn, increased the demand for short term care. With the close co-operation of the Children's Department and with extra assistance from the Home Help Service it has been possible for fathers to continue in their jobs without interruption.

Budgeting and Housing

In this City, it is the tenant in the lower income group who is most affected by the tightening of the housing policy, and the expectant mother is liable to suffer more than any other member of the family.

We have had cases of our more adequate parents removing under threat of eviction for it does not necessarily follow that even a fully rebated rent will leave sufficient income for food, clothing, heating, lighting and cleaning materials, quite apart from any hire purchase commitments.

This insecurity makes rehabilitative work more difficult, for example, we could not recommend a family to the Brentwood Rehabilitation Centre unless we were reasonably certain that a home could be maintained on their return.

The Mentally Disabled

Community care has been of special significance, for the return of the mentally disabled parents has sometimes meant their undertaking sole responsibility for the care of young children. Domiciliary supervision cannot always be a safeguard. Attempts to keep such a family united have sometimes resulted in children being received into care in the most unfavourable circumstances.

The recommendations of the *Royal Commission on the Law Relating to Mental Illness and Mental Deficiency* seek to deal with this problem. With a reorientation away from institutional care and towards protected community units, such a family could still remain together.

Mr. A. Strange, Organiser, Family Service, Unit reports:

During 1958 the Unit provided a service to sixty families in the Southmead, Henbury and Horfield area of the City and at the end of the year forty were still being visited. In addition to this a number of families were helped with individual enquiries or given short term help when they approached the Unit for assistance with specific problems. The twenty-two new referrals came to the Unit from a variety of sources, including Children's Department, Health Department, Special Families Meeting, Local Churches, Housing Department, Prison Welfare, School Welfare, Mental Health Department, estate community group and personal enquiries.

Altogether the Unit workers carried out 3,778 interviews or home visits, and 2,163 official contacts on behalf of families.

Although most of our referrals are families with serious difficulties, fortunately the position is seldom quite negative. For instance, last year in only one case the family broke down and parents separated. In this case the children, following a period of being cared for by the Local Authority, were re-united with their mother and the Unit followed up again giving her support.

With some of the families having serious marital problems it has been found helpful to use the services of the male worker in assisting the husband

and to arrange interviews at the Unit house which provides an atmosphere of privacy and confidentiality necessary for discussing personal difficulties.

Practical work continues to play an important part in the Unit's work and this is provided often at the initiative of the worker but always in a friendly and supportive manner. Frequently families are found to be in need of some of the more essential equipment, bedding and furniture, and whilst the Unit is able to meet some of these requirements its constructive purpose is to improve morale, and thus it needs to be provided in a manner which encourages self-respect and not over-dependancy.

The problem of employment continues to be a major one in many families. Of the forty families being visited at the end of the year, in fifteen cases the father was in employment, fifteen were unemployed, one was attending an industrial rehabilitation centre, three were disabled and in the remaining six cases there was no husband in the home. With the general recession in industry and in the building trade in particular during the past two years the opportunities for employment of an unskilled labouring type have been very limited. Most of the husbands had large families to support and needed to be in a position to earn an adequate wage which would include overtime or bonus above a basic minimum rate.

The relaxation of controls on credit and hire purchase trading has greatly increased the pressures to mortgage future income when already the family may be threatened with court action for debt. Much of the Unit's work is directed towards helping families to cope with debts, meet current commitments and appreciate the priorities, which have to be met if they are to avoid the ultimate threats which may have distressing consequences. To the consumer living on a low or even subsistence income, the credit and hire purchase system is an attractive and easy method of acquiring in addition to the necessary furnishings and equipment, the luxuries and semi-luxuries which give pleasure in life; but the social consequences at this level are quite considerable, and there seems to be a case for a degree of control on the grounds of social policy.

All the families were Local Authority tenants, and the problem of arrears of rent continued to be a major one. The Unit's approach to this needs to be realistic, i.e., that rent is a priority which the tenant has to meet in providing a home for his family. Most of these tenants were in the lower wage-earning group, with large families to provide for; and often irregular employment and ill health reduce the family income to subsistence level. In fact, on occasions, accumulated debts, borrowing and lending may reduce "net" income for short periods to below this level. In such circumstances the concern for the individuals in the home, especially the children, frequently calls for help in material and practical forms, to enable the parents to cope with the immediate situation. by relieving anxiety and tension.

It is interesting to note that over one-third of the referrals during the year were as the result of families coming to the Unit for help, and the Unit worker was able to follow up the contact on a long-term basis. This seems to show that families in the area in which the Unit operates have become aware of the service through personal contacts, which is a most valuable and constructive basis from which to commence giving help.

Welfare of Unmarried Mothers

Miss M. Reed, Welfare Officer, assisted 479 unmarried mothers referred to the Department, during the course of the year. One hundred and forty-seven (30 per cent) of these mothers were under twenty years of age. Three hundred and forty-five were mothers having a first illegitimate child, 79 a second, while the remaining 55 were having a third or more illegitimate birth, although in the latter group many of the parents were co-habiting.

The broken home is often a major factor in this problem of illegitimacy, and frequently the pregnancy is not the only difficulty that the girl has to face.

The trend in recent years towards more adoption continues, although this is not an indication of a less sense of responsibility on the part of the mothers. In the vast majority of cases the girl, in spite of great personal distress when the time comes to part with her baby, does so because she believes that she is giving her child a better chance in life. During the year a special evening ante-natal clinic has been started, which is proving very helpful for the girls, especially while they are still working. A modified mothercraft and relaxation class is run in association with this session.

Our mother and baby home at`Snowdon Road continues to meet the need of the girl who requires shelter before and after the birth of her baby—a hostel extension to the home would be a very valuable addition to our service.

STATISTICS

Table I—Maternal and Child Health

Live births	6,978
Live birth rate	15·9
Stillbirths	122
Stillbirth rate per 1,000 total (live and still) births	17·2
Total births (live and still)	7,100
Infant deaths	144
Infant mortality rate per 1,000 live births	20·6
Infant mortality rate per 1,000 legitimate births	20·5
Infant mortality rate per 1,000 illegitimate births	26·8
Neo-natal mortality rate (first 4 weeks) per 1,000 related live births	14·5
Illegitimate percentage of live births	4·8
Maternal deaths (including abortion)	2
Maternal mortality rate (including abortion) per 1,000 total births	0·28
Total number of live premature births	533
Total number of births at home	1,870
Total number of births in institutions	5,399

Clinic Attendances:	*New Patients*	*Total Attendances*
(a) *Ante-natal clinics*		
(i) Medical Officers' sessions	1,282	9,501
(ii) General practitioner sessions	3,127	23,190
(iii) Consultant sessions	4,250	8,908
(iv) Midwives' sessions	145	5,336
(b) *Post-natal clinics*		
Medical Officers and General Practitioners	3,804	5,647
(c) *Child Welfare Centres*		
(i) Total number of infants under 1 year		9,985
Total attendances of infants under 1 year		71,955
(ii) Total number of children 1–5 years		3,129
Total attendances of children 1–5 years		23,966
(d) *Special diagnostic clinic*		
New patients		246
Attendances		673

Health Visitors:

Home Visits — Ante-natal	1,621
Primary	7,110
Infants under 1 year (excluding primary visits)	32,827
Children 1–5 years	50,796
Sessions attended—clinics	5,273
Nursery schools and classes	1,545 hours

Recuperative Convalescence

Mothers accompanied by children	43 mothers 106 children
Unaccompanied children	8
Adults (including 106 over 65 years)	176

Welfare of Unmarried Mothers

Number admitted to City Home—Snowdon Road	49
Number admitted to other Mother and Baby Homes	14
Number admitted to Grove House Hostel	2

Table 2—X-Ray Section

The following are the numbers of X-rays carried out at the Central Health Clinic during 1958:

		1958	*1957*
School Health Service			
Referred from Minor Ailment Clinics, etc.		465	526
Referred by consultants:			
E.N.T.	648		
Orthopaedic	271	919	1,041
Teachers' periodic X-Rays of chest ..		767	799
Tuberculosis Service:			
Adult contacts	146		
Child contacts	978		
Children inoculated with B.C.G.	2,361	3,485	3,230
Maternal and Child Welfare Service:			
Children under 5		15	5
Mothers—X-Rays of chest		4,053	4,261
Mothers—X-Rays of abdomen		161	225
Staff Medical Examinations and Periodic X-Rays (excluding Teachers)		2,889	2,983
Miscellaneous		102	126
Total No. of Films taken		12,856	13,196
Total No. of Persons X-Rayed		11.830	12,003

Table 3—Dental Treatment

	Examined	*Requiring Treatment*	*Treated*	*Made Dentally Fit*
Expectant and nursing mothers	810	791	761	696
Children under 5	1,626	1,511	1,465	1,454

	Scalings and Gum treatment	*Fillings*	*Silver Nitrate*	*Crowns or Inlays*
Expectant and nursing mothers	425	1,108	—	1
Children under 5	5	361	974	—

			Dentures		
	Extractions	*General Anaesthetics*	*Full upper or lower*	*Partial*	*X-rays*
Expectant and nursing mothers	1,526	315	117	84	79
Children under 5	2,295	1,316	—	—	—

Table 4—Inoculations

		1958	
	Local Authority	*General Practitioners*	*Total*
Diphtheria (whether combined with Whooping Cough and/or Tetanus or not)			
Full course: Under 5 years of age	3,380	2,105	5,485
Between 5 and 15 years of age ..	51	47	98
Booster dose: Under 15 years of age	1,348	805	2,153
Whooping Cough (whether combined with Diphtheria and/or Tetanus or not)			
Full course: Under 5 years of age	3,310	2,083	5,393
Between 5 and 15 years of age ..	31	45	76
Booster dose: Under 15 years of age	879	644	1,523
Tetanus (whether as Tetanus-Diphtheria-Whooping Cough Triple Vaccine or not)			
Full course: Under 5 years of age	3,137	1,769	4,906
Between 5 and 15 years of age ..	17	53	70
Booster dose	148	252	400

	Under 5	*Between 5/15*	*Total*
Diphtheria Immunisation (whether combined with Whooping Cough and/or Tetanus Immunisation or not)			
Six months ended 30th June, 1958	2,733	45	2,778
Six months ended 31st Dec., 1958	2,752	53	2,805
Whooping Cough Immunisation (whether combined with Diphtheria and/or Tetanus Immunisation or not)			
Six months ended 30th June, 1958	2,674	34	2,708
Six months ended 31st Dec., 1958	2,719	42	2,761

Table 5—Smallpox Vaccination

	Number of persons vaccinated (or re-vaccinated) 1958					
Age at time of Vaccination	*Under 1 year*	*1—*	*2—*	*5—*	*15 and over*	*Total*
No. vaccinated ..	2,042	135	98	132	189	2,596
No. re-vaccinated ..	236	8	19	50	281	594

Table 6—Vaccination against Poliomyelitis in 1958

Year of Birth	*Primary Cases*	*Booster*
1954–1958 ..	15,923	118
1943–1953 ..	39,520	1,586
Before 1943 ..	8,126	4
Totals ..	63,569	1,708

Table 7—Annual Return from Dispensary

1957			1958
	Establishments Served:		
	Health Centres and Clinics	35	
	Residential Institutions	27	
	Day Nurseries, Day Special Schools, Nursery Schools and Classes	38	
	Other Establishments	23	
	Municipal Midwives and Pupils	36	
636	School First Aid Sets		754
1,825	Gas and Air Apparatus Servicings		2,023
	Turnover of Drugs, Dressings, etc.:		
315½	Mixtures made	Gals.	275
567	Ointments made	lb.	469
54	Powders made	lb.	11½
498	Other Medicines Dispensed	Gals.	526½
61	Vitamin A and D Emulsion	Gals.	50
2,809	Diphtheria Prophylactic, F.T., T.A.F.	ml.	1,380
7,360	Combined Diphtheria—Whooping Cough Vaccine	ml.	31620
15,190	Tetanus–Diphtheria–Whooping Cough Vaccine	ml.	20,660
2,040	Whooping Cough Vaccine	ml.	1,780
863	Tetanus Toxoid	ml.	542
410	Lint	lb.	536
846	Cotton Wool	lb.	851
	Bulk Purchase of Drugs:		
787½	Kgm.	Kgm.	397½
1,159½	Litres	Litres	1,404
1,105	Tabs (1,000)	Tabs.	965

THE MENTAL HEALTH SERVICES

Dr. H. Temple Phillips
(*Chief Assistant Medical Officer of Health and Senior Medical Officer for Mental Health*)

and

F. Morton
(*Mental Health Officer*)

Introduction

The report of the Royal Commission on the Law Relating to Mental Illness and Mental Deficiency was referred to in last year's annual report, and the Commission's recommendations have continued to receive close attention during 1958.

One important result of the report was the issue by the Ministry of Health, in January, 1958, of a circular authorising the informal admission of patients to mental deficiency hospitals in appropriate cases. As a result, by the end of the year 30 patients had been so admitted to the Hortham-Brentry Group. So far, other local mental deficiency hospitals have been more cautious in implementing the policy of informal admission.

The same circular also called for a review by local health authorities and hospitals of mental defectives under order, with a view, where possible, to their discharge from formal order. Of the 41 patients under guardianship at the beginning of 1958, 27 were discharged from order during the year (to remain under statutory supervision), and 63 Bristol cases in hospital were discharged from order (remaining in hospital on an informal basis).

Of the remaining recommendations of the Royal Commission, some, as mentioned last year, are already being implemented by this authority; others must await new legislation.

The new Mental Health Bill received its first reading in the House of Commons in December, 1958, and when this becomes law, important new functions are likely to devolve upon local health authorities. Such functions may include the provision of residential accommodation, and increased provision of centres or other facilities for training and occupation, for various classes of mentally disordered persons. In addition, there is likely to be a greatly increased emphasis on all community mental health services, to an extent which may require a considerably augmented staff of social workers and others.

Two projects which have received a great deal of attention during the year are the provision of a residential hostel for mental defectives and the provision of a new occupation centre. The latter becomes increasingly urgent each year as the demand for places at Marlborough House continues to grow. The number of patients attending Marlborough House is now in excess of 250 (i.e., about the maximum possible), and two additional posts of assistant supervisor were added to the establishment during 1958. The policy now agreed upon by the Council is to press for the building of the new training centre at the Bush Estate without further delay, and to utilise Marlborough House, which would thus be released, for hostel purposes.

A noteworthy event during 1958 was the production of a splendid sound film, in colour, depicting the activities of Marlborough House. Sincere thanks are due to the Parent-Teacher Association, who financed the venture, and to the Bristol Amateur Cine Club, who were responsible for the actual filming.

Establishment and Staff

During the year the two posts of Assistant Mental Welfare Officer were filled. Mr. N. Convy assumed his duties on 9th June, 1958, and Mr. E. W. C. Pierce was appointed to take up his duties on 1st January, 1959.

Of the Occupation Centre Assistant Supervisors, three resigned during the year, and their vacancies were filled.

The Health Committee approved a recommendation for the appointment during 1959/60 of two additional Occupation Centre Assistant Supervisors, made necessary by the increasing numbers attending the centre.

The Committee also approved in October the appointment of an additional guide for the extra coach necessary for the transport of patients attending the Occupation/Industrial Centre.

Training Courses

The two-year "In-Service" Diploma Course run by the National Association for Mental Health, for "teachers of the mentally handicapped", came to an end in July. The three members of the Occupation Centre staff who took the course all gained excellent results, and were awarded their diplomas.

In conjunction with West Bristol Evening Institute of Further Education, another course of lectures on the care and training of mentally handicapped children was held at the Central Health Clinic in May and June. This was very well attended by parents and interested workers both from Bristol and surrounding districts.

A series of lectures on mental health was given during the year to staff of the Ambulance Section.

In July, the Deputy Mental Health Officer attended a course of study held in London by the National Association for Mental Health concerning the report of the Royal Commission and its implications for mental health workers.

During October and December, the Supervisor of the Occupation Centre attended a course of lectures—Health Education in Schools—arranged by Bristol University (Institute of Further Education).

We have, as usual, welcomed to Marlborough House many visitors and students from home and abroad.

Mental Deficiency

On the 31st December, 1958, the total number of mental defectives known to the Local Health Authority was 1,802. This represents a total mental deficiency rate of 4·1 per thousand of the estimated population as compared with 3·72 per thousand in 1957.

Of the 1,802 cases, 1,639 (3·7 per thousand) were formally ascertained. 163 were either discharged from formal care or not yet found subject to be dealt with under the provisions of the Mental Deficiency Acts.

Of the 1,639 ascertained cases, 704 (43 per cent.) were in hospital or on licence from hospital, and 935 (57 per cent.) were receiving care in the community.

The following table shows the number of mental defectives under care since 1949:—

Year	*In Hospital and on Licence*	*Under Statutory Supervision*	*Under Guardianship*	*Receiving Voluntary After-Care*	*Pending Formal Ascertainment*
1949	676	736	65	72	29
1950	678	804	56	116	24
1951	685	857	54	147	17
1952	670	876	43	210	15
1953	665	932	51	105	58
1954	657	972	46	113	59
1955	669	1013	42	116	47
1956	678	962	40	91	24
1957	683	911	41	107	30
1958	704	923	12	125	38

During the year 102 new cases were reported as mentally defective. Of these 16 were admitted to mental deficiency hospitals, 45 were placed under statutory supervision, and in 34 cases action was deferred. In 5 instances action was found unnecessary. Two patients died before other action could be taken.

The following table shows the age distribution of the 935 mental defectives under supervision and guardianship at the end of 1958:—

Age Group	*Male*	*Female*	*Total*
Under 1 year	—	—	—
1–1½	—	—	—
2–2½	—	—	—
3–3½	1	1	2
4–4½	1	—	1
5– 9	25	32	57
10–14	49	36	85
15–19	93	67	160
20–24	135	80	215
25–29	65	54	119
30–34	43	40	83
35–39	34	23	57
40–44	24	17	41
45–49	20	22	42
50–54	18	16	34
55–59	6	13	19
60–64	2	10	12
65–69	3	4	7
70–74	1	—	1
75 and over	—	—	—
Totals	520	415	935

In January, 1958, Circular 2/58 was issued by the Minister of Health. This circular provides for the informal admission of patients to mental deficiency hospitals, and for the review of guardianship cases. In accordance with these recommendations, 30 patients were admitted to Hortham Hospital informally. The hospital also reviewed their patients and by the 31st December, 1958, 63 patients had been discharged from order by the Board of Control and undertook to remain in the hospital as informal patients. Of these 63 patients, 7 took their discharge before the end of the year.

So far, no other mental deficiency hospital has agreed to accept any Bristol cases on an informal basis.

Review of Guardianship Cases

The Minister, in Circular 2/58, asked that Local Health Authorities should review the cases of those patients from their areas who are subject to guardianship orders. Following the review, 27 cases were discharged by the Board of Control and transferred to statutory supervision.

Waiting List

Difficulty has continued in obtaining admission to mental deficiency hospitals for certain urgent cases, particularly young children. No difficulty arose, however, during the year, regarding the admission of older defectives. At the commencement of 1958 there were 21 names on the list of persons awaiting admission to hospital, and during the course of the year 34 were added. Of this total of 55, 27 were admitted to mental deficiency hospitals, leaving a total of 28 still awaiting admission at the end of the year. Twenty-eight urgent cases were admitted in addition to those from the waiting list, making a total of 55 admissions during the year.

Temporary Care

During the year it has been necessary to arrange temporary care, in accordance with Ministry of Health Circular 5/52, for 54 patients, who have been accommodated as follows:

	Male	*Female*	*Total*
Hortham-Brentry Group	14	8	22
Stoke Park Group	9	19	28
Sandhill Park Group	—	1	1
Others	—	3	3
	23	31	54

Occupation Centre

On the 31st December, 1958, the total number of patients on the register, totalling 252, was as follows:—

	Males		*Females*	
	Under 16	*16 and over*	*Under 16*	*16 and over*
Occupation Centre ..	62	—	59	56
Industrial Centre ..	1	74		

The average daily attendance was 206 (119 male and 87 female).

Accommodation

The demand for places at the Occupation Centre has continued to increase and conditions are now considerably overcrowded. As stated in the report for last year, the Committee are actively pursuing a policy for a new training centre and it is hoped that approval to the scheme will be given by the Minister of Health during 1959.

Medical Care

During the year, routine medical examinations have been carried out on all children attending the Centre by doctors of the School Health Service. All children are examined once a year and parents are invited to be present. Any abnormalities or disabilities are reported to the parents and where necessary treatment is arranged either with the family doctor or at one of the City's health clinics.

Special Care Unit

The Committee have given particular attention to the inadequate facilities which are provided for the training of children suffering from multiple handicap, i.e. those children who, besides being mentally defective, are blind, deaf, spastic or epileptic.

Reorganisation of the nursery group was carried out and a separate room set aside as a Special Care Unit. Approximately 15 children are catered for in this group and it is staffed by a qualified nursing sister and an assistant.

The following table gives some indication of the number of cases of physical disability among some 1,100 mental defectives living in the community:—

	Male	*Female*	*Total*
Epilepsy	60	54	114
Cerebral palsy	32	31	63
Blind or partially sighted ..	15	15	30
Congenital abnormalities ..	17	14	31
Orthopaedic defects ..	10	11	21
Muscular inco-ordination ..	3	7	10
Severe deafness	8	1	9
Chronic respiratory disorders	3	1	4
Cardio-Vascular disorders	—	3	3
Post-Encephalitic Parkinsonism	2	—	2
Diabetes mellitus	1	—	1

Psychologist's Report

During 1958 the psychologist's work at the Occupation Centre has developed more on the advisory side, although some diagnostic routine testing has continued as before.

Advisory

(i) Two experimental discussion groups have been started for the boys and girls in the sheltered workshops who seem to have most chance of being employed outside the centre. At first, discussion followed short plays recorded on tape which illustrated the kind of situation such boys and girls might meet at work. Later developments have been to widen the scope of the discussion and to include one or two of the more difficult patients, hoping that the general climate of opinion of their fellows may help to modify their behaviour. It is too early, as yet, to assess results, but the experiment does seem worth continuing.

(ii) Children are seen who have been getting into difficulties at the Centre and advice is given or the child referred for further investigation to the assessment clinic.

Diagnostic

(i) Sixty routine examinations have been carried out in the case of children already attending the Occupation Centre.

(ii) Eleven children have been interviewed on reaching the age of 16 years as to their employability.

(iii) Twelve children have been referred for advice.

(iv) Eight were referred from outside the Centre for assessment.

Speech Therapist's Report

Earlier in the year the speech therapy service was interrupted by the resignation of Miss Kane, after only a few months of duty. A satisfactory full-time cover has now been organised in conjunction with three therapists employed by the education authority, who attend on a rota system.

The children have continued to receive speech exercises and more individual attention has been given to selected cases. All new children attending the Occupation Centre are seen by the therapist immediately upon arrival, and arrangements are put in hand for suitable treatment where necessary.

The co-operation of the parents, a vital factor in making any progress, has been very evident throughout the year.

Report of the Teacher of the Deaf

In the year ending December 1958, a further 106 adults and children have been tested for hearing loss at Marlborough House. Two male adults who failed on word tests responded well to audiometry and reliable audiograms were obtained, showing that they were both suffering from perceptive deafness. Arrangements were made for them to see a consultant and hearing aids were ordered. These men are in addition to the two found to have hearing losses in the year ending December 1957.

Of the women in the sheltered workshops tested so far, six have been referred back for pure tone audiometry. Three audiograms have been completed and these show that two have an acquired conductive loss and the other has a unilateral perceptive loss.

Most of the testing to be carried out now will be pure tone audiometry. For reliable results this entails the careful conditioning of the patient to respond to a sound with a definite action (usually placing coloured bricks in a box—or knocking them into a box). However, the examiner must be sure that the patient's response is to the sound and not merely an automatic rhythmical movement or because the patient has become too interested in the activity and has disregarded the sound stimuli. When the examiner is reasonably sure that the patient is aware of what is required, he must introduce the earphones to the patient and begin the conditioning again to a slightly more difficult stimulus —the pure tone. Because the span of concentration is so small, it may mean many visits before all frequencies have been tested. Several of the younger children have to be re-tested in this manner, and ten new entrants have yet to be screened for possible inclusion in the number waiting to be tested by pure tone audiometry.

Patients' Amenities

The entertainment and social activities of the Centre have been well maintained. Annual shows and concerts by the patients and the staff have been well received, and attained a fairly high standard. So popular have the harvest festival and Nativity Play become among the parents and friends, that these functions were held this year in the Priory Church of St. James, Horsefair, by kind permission of the vicar and churchwardens.

Camps

The 1958 Marlborough House annual camp was held at Barton Camp, Winscombe, which was made available by the Bristol Children's Help Society.

During the two weeks, 13th to 26th June, 1958, 44 male adult patients were accommodated, and in the second fortnight, 27th June to 10th July, 1958, 46 female patients and 7 boys under the age of 16 years occupied the camp.

Full time supervision was provided by members of the Marlborough House staff who volunteered for the purpose. The choice of dates was most fortunate, in that fine warm weather prevailed throughout most of the period.

The camp is situated on the outskirts of the village of Winscombe, on the verge of the Mendip Hills, some 20 miles from Bristol. It is set in delightful rural surroundings. Accommodation consists of two permanent buildings, each of two storeys, with dormitories on the first floor above kitchen, dining-room, staff rooms and a covered playing space. A large hut, equipped with stage and piano, provides excellent facilities for recreation in wet weather and in the evenings. During the time the Marlborough House party were in the camp, a television set was installed in the hut, the cost of the hire being defrayed from the patients' amenities fund. The programmes were enjoyed by boys and girls of all levels of intelligence, and were of great assistance in providing occupation during the difficult period between supper and bedtime.

The facilities for outdoor activities at the camp are excellent. In addition to a spacious playing field, a bathing pool is provided, together with a recreation area containing swings, slide and round-about, while the surrounding hills and fields are ideal for rambles. With the help of the Marlborough House Parent-Teacher Association, coaches were arranged to transport parents and friends to Winscombe on visiting days, and a happy time was spent by both campers and visitors.

The Bristol Children's Help Society was unable to provide domestic and catering staff and the camp was therefore handed over to officers of the Mental Health Section, to be run to suit the requirements of the camping group. Two ladies were appointed on a temporary basis to undertake the duties of cooking and housekeeping.

It is interesting to record that local residents who had not had previous experience of mental defectives, very quickly accepted our patients into their midst and were lavish in their praise of the conduct of both the boys and girls. At the end of the camp period the officers of the Bristol Children's Help Society expressed their appreciation for the great care which was taken of all the camp property by the whole camping party and the excellent state of cleanliness in which the camp was vacated.

A very comfortable camping holiday was enjoyed by all the boys and girls who attended, and the venture was so successful that it is hoped to accept the invitation of the Bristol Children's Help Society to make use of the camp facilities again in 1959.

For those children unable to go to camp, provision was made for them to have a day at the seaside. We are indeed indebted to the Parent-Teacher Association and the Bristol and District Branch of the Association for Mentally Handicapped Children, who made this possible.

Scouts, Guides, etc.

The Scouts, Cubs, Guides and Rangers have continued their activities and much praise has been received for their neatness and efficiency. Much credit is due to the staff for their interest and understanding, without which it would be impossible to maintain the high standard of efficiency which exists in the Companies. During the year a cup and a shield were purchased—the cup for the best scout of the year and the shield for the best guide of the year (to be called the Baden Powell Centenary Award). The awards were presented at the Marlborough House annual sports held at Purdown Hospital in July.

Industrial Centre

The three sheltered workshops set up in 1957 have continued to provide occupation for the higher grade men and women attending Marlborough House.

Difficulty in obtaining suitable contractual work from local manufacturers has been occasioned by a trade recession which has made it necessary for skilled workers in factories to be employed on repetitive tasks to avoid redundancy. Nevertheless, it has been possible to obtain sufficient jobs to keep 39 boys and 20 girls constantly occupied and encouraged by weekly payments of pocket money.

A further result of the trade recession has been that a number of young men and women have been discharged from employment and have returned to the centre for training and occupation. In addition, the Youth Employment Officer has found extreme difficulty in placing special school leavers in work, so that some of these boys and girls have attended Marlborough House daily. It would be helpful to these higher grade patients, if the scope of the workshops could be increased, but this has not yet been possible, despite constant efforts to obtain suitable contracts.

Marlborough House Parent-Teacher Association

The Association has continued its normal programme of educational and social meetings—a garden party in the summer, a coach outing to Sand Bay for non-attenders at camp and outings arranged to take parents to camp on visiting days.

As mentioned in last year's report, the Association accumulated the sum of £100 for the cost of a film illustrating the work of the Occupation Centre. The film, in sound and colour with a running time of about 15 minutes, was completed during the latter half of the year, and has proved to be highly successful. The Bristol Amateur Cine Club, which made it, is to be warmly congratulated upon the quality of the production. The Health Committee has since purchased two additional copies of the film, which will be available for showing under health education arrangements, to interested bodies.

The Association plans next to purchase a new film projector for the Occupation Centre, and, mainly by means of a very vigorously conducted Christmas draw, has collected some £230 towards this. In ways such as these, the Association aims at fulfilling its principal function—that of providing for the benefit of all who attend the Occupation/Industrial Centre, facilities additional to those provided by the Local Health Authority.

After-Care of Mental Defectives

In the annual reports for 1956 and 1957, attention was drawn to the issue of the Ministry of Health Circular 56/25 concerning discharge of mental defectives from licence, and to the consequent increase in the number of patients released from order of the Mental Deficiency Acts. This tendency has persisted, and in 1958, 44 new cases were added to the After-Care Register as compared with 35 in 1957.

Mental Defectives receiving After-Care in the Community

	Male	*Female*	*Total*
At 31st December, 1957	53	54	107
Added to Register during 1958	20	24	44
	73	78	151
Discharged from After-Care during 1958..	8	18	26
Remaining at 31st December, 1958 ..	65	60	125

The continuing trade recession has made it difficult for some of these men and women to find or to retain employment and the provision of suitable lodgings has remained a major problem.

For the most part, the decision to discharge patients after a period of twelve to eighteen months' licence has been justified, but in several instances early breakdowns have resulted in major social problems.

In the past, a considerable number of patients were admitted to the local mental deficiency hospitals from all parts of the country. Concern is felt over the number of these men and women who are now being discharged into lodgings or residential employment in Bristol, and are thus becoming a responsibility to the Bristol Local Health Authority. This number has more than doubled since the operation of Ministry of Health Circular 56/25 referred to above, and this is illustrated in the following analysis:—

Non-Bristol patients referred to Bristol Local Health Authority for After-Care

	1954	*1955*	*1956*	*1957*	*1958*	*Total*
Hortham	2	–	–	3	3	8
Brentry	–	2	2	4	2	10
Totterdown ..	–	1	–	–	–	1
Starcross	–	1	–	–	–	1
Coleshill ..	–	–	–	1	–	1
St. Raphaels ..	–	–	–	1	1	2
Sandhill Park ..	–	–	–	1	–	1
Stoke Park ..	8	4	20	13	16	61
Total during year	10	8	22	23	22	85

It is felt that in such cases the risk of an early breakdown is intensified if patients are discharged after only a short period of licence and are then without the support of relatives. This is particularly noticeable when patients who have been discharged from order enter residential employment, lose their job, and have to seek alternative accommodation in a city where suitable lodgings are difficult to acquire.

Mental Deficiency Assessment Clinics

During 1958, a further advance in the community mental health service has been effected by the establishment of mental deficiency assessment clinics in Bristol. This has been made possible by close co-operation between the Local Health Authority, the South Western Regional Hospital Board, and the Board of Governors of the United Bristol Hospitals. Sessions are held at the Central Health Clinic during the afternoons of the second and fourth Tuesdays of each month, and at the Bristol Children's Hospital on alternate Thursday afternoons. Those at the Children's Hospital are intended for children up to school leaving age and those at the Central Health Clinic for patients of any age.

The clinics are designed to provide an advisory service and to create an easy means of obtaining consultant help for general practitioners. Two consultant psychiatrists are provided by the Regional Hospital Board, and social workers and clerical staff by the Local Health Authority. There is, therefore, a valuable pooling of information and staff. Any problem associated with mental retardation can be considered with the utmost care and assessed with the aid of the maximum amount of data. Decisions as to the solution of problems are reached after consideration of both the local health authority's and the hospital authority's point of view.

Arrangements for attendance are made by the Mental Health Section of the Health Department or by the Medical Records Department at the Children's Hospital, and details have been widely circulated to doctors and other interested persons. The service has also been made available to patients living outside the area of the Bristol Local Health Authority.

The first clinic was held on the 10th June, 1958, and by the 31st December, 1958, the following cases had been dealt with:—

	Central Health Clinic	*Children's Hospital*
New cases	31	27
Follow-up consultations	8	27

During the short period since these clinics were opened, they have been found to be extremely valuable to the officers of the Mental Health Section and to the parents and guardians of mental defectives. The scope of the clinics includes such functions as diagnosis of mental deficiency and the identification of particular clinical types (although there is no intention to undertake "ascertainment" as this remains the statutory duty of the Local Health Authority); minor treatments given at the clinics and advice to general practitioners on treatment of specific conditions; advice to parents, guardians, and social workers on special problems associated with mental retardation; examination of patients who appear to need hospital care and training, and the assessment of priority when admission to hospital cannot be avoided. The value of the clinics is illustrated by the following cases:—

Case No. M.D.A. 419

This girl, now aged 12 years, was excluded from an E.S.N. School and referred to the Mental Health Section in 1954. She was ascertained as mentally defective, placed under supervision and attended Marlborough House daily for training. She had always been an excitable and distractable child but the behaviour problem increased when she began to attack younger children, by pulling their hair and scratching them. She threw various articles about and was subject to outbursts of screaming. Soon afterwards there was a deterioration in her personal habits. Her parents found it increasingly difficult to control her and her conduct had a detrimental effect upon her two younger sisters. Consideration was given to her admission to hospital, but in the first instance the child was brought to the Assessment Clinic where medical treatment was prescribed. She has now been seen on several occasions at the clinic, and there is a definite improvement in her behaviour and in her physical condition. As a result it has been possible to avoid admission to hospital.

Case No. M.D.A. 206

This 7-year-old child was discharged from a mental deficiency hospital and referred to the assessment clinic for follow up and observation of the effect of medication prescribed to control his epilepsy. In this way out-patient clinic facilities were made available and it was possible to ensure maximum supervision and the continuation of treatment which had been commenced in hospital. The child has settled well and has started occupation centre attendance.

Case No. M.D.A. 420

This mongol boy suffered from a mild attack of dermatitis on his hand in April 1958. The skin condition responded to treatment by the general practitioner and was cleared up within a few days, but the boy developed the idea that something was wrong with his hand and he avoided using it as much as possible. He became increasingly withdrawn and was frequently found sitting facing the wall, muttering to himself. He became very lethargic, his speech slowed down, and there were indications of thought-blocking. The boy attended the assessment clinic where the circumstances were investigated. It was found that he was severely affected by anxiety in the home over his father's illness and medication was prescribed. He has attended for follow-up and his condition has improved very considerably. He is now using both hands quite normally and there is no evidence of any continuous degenerative process.

Case No. M.D.A. 276

This man was a resident in an old persons' home and was reported to the Mental Health Section as being of unsound mind. He was judicially examined but no reason was found for admitting him to a mental hospital. It was obvious, however, that he was of sub-normal intelligence and consideration was given to his being dealt with as a mental defective. In order to determine the extent of his mental retardation, and to seek advice on the proper solution, the problem was brought before a psychiatrist at the assessment clinic. As a result of the investigation the man was admitted informally to a mental deficiency hospital, where he remains.

Hostel for Male Mental Defectives

The Committee's efforts to find suitable premises for this purpose were referred to in last year's annual report and it will be recalled that at the close of 1957, the use of Mortimer House and Nos. 11 and 12 Mortimer Road, Clifton, were being considered. As a result, however, of strong representations from the Regional Hospital Board and the Ministry of Health to the effect that these premises should be retained for maternity purposes, this project was dropped. Numerous objections to the establishment of a hostel in the area had also been received from local residents and interested bodies such as schools.

Other accommodation was therefore sought, and in February 1958 the Committee gave consideration to the purchase and adaptation as a hostel of the Station Hotel, Ashley Hill. Vigorous local opposition was again encountered, and this led to the setting up by the City Council, in May 1958, of a special committee "to submit a recommendation to the Council concerning the provision of a hostel for adult mental defectives."

The Committee met on several occasions and, at the close of the year, were examining the possibility of establishing a hostel at Marlborough House, which will be vacated when the proposed new Occupation and Industrial Centre is completed elsewhere in the City.

Marlborough House is believed to be well suited to such a purpose, and, in fact, it was used as a residential home before it was taken over by the Mental Health Section. The building has been used for the training of mental defectives for a number of years and the patients have been well accepted in the locality. It is, therefore, hoped that no difficulties will be encountered in the form of local prejudice.

In order to determine the need for hostel accommodation in Bristol, a survey of all mental defectives living in the community under statutory supervision or guardianship has been carried out, and the following facts have been elicited:—

Patients of all ages	*Male*	*Female*	*Total*
Living with parents ..	426	299	725
Living with relatives ..	49	64	113
Living in lodgings ..	18	12	30
Married	27	40	67
	520	415	935
Employed	199	81	280
Unemployed	70	28	98
Unemployable	175	203	378
Children	76	69	145
Housewives	—	34	34
	520	415	935

Age Group	*Patients over 15 living in lodgings* Male	Female	Total	*Patients over 15 living with parent/relative over 65 years* Male	Female	Total
15–19 ..	4	–	4	–	4	4
20–24 ..	10	3	13	6	3	9
25–29 ..	–	2	2	12	9	21
30–34 ..	1	–	1	10	13	23
35–39 ..	–	–	–	5	6	11
40–44 ..	2	–	2	6	7	13
45–49 ..	–	3	3	4	6	10
50–54 ..	1	1	2	8	2	10
55–59 ..	–	–	–	–	6	6
60–64 ..	–	2	2	–	3	3
65–69 ..	–	1	1	–	1	1
70–74 ..	–	–	–	1	–	1
Total	18	12	30	52	60	112

Mental Illness

During the year ended 31st December, 1958, a total of 655 cases of mental illness were dealt with by the mental welfare officers, a reduction of 44 compared with the previous year. This was the fifth successive year during which such a reduction has been recorded. Whilst at first sight the conclusion might be drawn that the incidence of mental illness is falling, such is not in fact the case, as the decrease in cases referred to mental welfare officers is more than offset by the increase in the number of cases admitted direct to mental hospitals as voluntary patients by arrangement with consultant psychiatrists.

It is interesting to note that mental welfare officers were successful in arranging 40 direct admissions on a voluntary basis to mental hospitals and informally to neurosis units—the corresponding figure for 1957 was 25. Only 9 direct admissions to mental hospitals on a certified basis were necessary as compared with 19 in 1957.

Four hundred and three of the 655 cases referred (61·5 per cent.) had to be admitted compulsorily to mental observation wards compared with 463 out of a total of 699 (66 per cent.) in 1957. In 193 instances it was found possible to provide suitable care without invoking the provisions of the Lunacy or Mental Treatment Acts.

Of the 403 patients admitted to the mental observation wards in 1958, transfer to a mental hospital was subsequently found to be unnecessary in 167 cases. Of the remainder, 87 had to be certified in order that necessary treatment could be provided, but this represents a reduction of 19 as compared with the figure for the previous year. Following admission to the observation ward, 142 patients elected to enter mental hospitals on a voluntary basis or were accepted into neurosis units.

In addition to those persons dealt with by the mental welfare officers, 844 patients (318 male and 526 female) entered mental hospitals on a voluntary basis by arrangements made with consultant psychiatrists. The comparable figure in 1957 was 613.

The very considerable increase in the number of persons seeking treatment voluntarily is of particular interest in view of the fact that it is anticipated that new legislation will be introduced in the near future, to provide for informal entry to mental hospitals.

In 1958 there was a slight increase in the number of persons over the age of 70 years referred to the mental welfare officers. One hundred and eight-six cases were investigated as compared with 176 in 1957. Admission to mental hospitals was necessary in 39 instances but 25 of these persons entered voluntarily.

Psychiatric After-Care

Psychiatric after-care has been given during the year to men leaving the forces on psychiatric grounds, to persons referred to this Department by social workers and agencies, to those who have left the observation wards at Manor Park Hospital with pressing problems, and to patients who, having been initially visited by the mental welfare officer and not taken into hospital, continued to present a social problem. In addition, work has continued with the long term cases, several of whom have had spells of in-patient treatment during the year.

To illustrate the volume of work which may be involved in connection with patients leaving Manor Park Hospital, we quote the case of a young man with a wife and four children who, because of eviction through rent arrears, attempted suicide. He had an inadequate personality with sub-normal intelligence, and suffered from epilepsy. After discharge from hospital, he stayed with a relative, his family joining him later, and at first, despite the social worker's fears, there was peace in the household. However, quarrels soon broke out and the couple were told to leave. Their children, who had become most unhappy during these quarrels, were taken into care and settled down well in the children's home. The couple, despite advice, went to live with yet another relative, and a fresh set of family quarrels ensued. Eventually they left this accommodation and were then forced to face up to their true situation and start to look for suitable lodgings. Help was given step by step and they found two rooms; the wife was found to be pregnant, but fortunately their landlady did not object to a child in the house. Frequent visits were made to sort out their tangled financial situation; in addition, contact was made with the health visitor in order that arrangements could be made for the confinement. When the patient's general health improved, he was put in touch with the Disablement Resettlement Officer of the Ministry of Labour, and this is the present situation. A great deal more work has to be done with this family before they can be re-housed, suitable work found for the man, and their children restored to them, but it is doubtful whether, without vigorous help, they would have reached even this stage in their rehabilitation.

Another case is that of a married woman, aged 52, who, having discharged herself from hospital against advice, was admitted to the observation ward within 24 hours. She was not certifiable and there was no alternative but to discharge her home again. Follow-up visits were made and many acute domestic, financial and personal problems were revealed. In addition, the patient had poor general health and was unable to tackle her problems without constant support. Attendance at the Social Therapy Club was helpful and after gaining some confidence, the patient approached her general practitioner and took steps to have treatment to improve her general health, thus becoming better able to face her many other problems. Help was given in sorting out the many debts, in seeking more suitable accommodation, and in alleviating some of the matrimonial disharmony, and in time, there was a definite improvement in the whole domestic situation.

Thirty-three patients were added to the psychiatric after-care list during the year and 26 were discharged, making the new total, on the 31st December, 1958, 66 (compared with 59 in 1957).

Social Therapy Club

During the past year, the Social Therapy Club has continued to give daily help and encouragement to patients discharged from hospital. These persons often find difficulty in facing up to the problems of life outside the security of the hospital and they benefit from the cheerful, friendly club atmosphere. Their minds are eased to find others experiencing the same doubts and difficulties;

the lonely find companionship and to those who have been drifting it offers a "goal" for each day. The change in attitude towards life is often noticeable within a few weeks and everything is done to cultivate this. Constructive help is given in the form of handicrafts, and the patients often seek help from the social worker upon their employment and personal problems.

The presence of members from the local Townswomen's Guild has helped to make the club a happy place and we are grateful for their continued support.

Patients are being referred in increasing numbers from the social workers of the local mental hospitals, and there is close liaison between the Local Health Authority and these workers.

The club room now looks most attractive with its new decorations and furnishings in tasteful, contemporary design.

Suicide

During 1958, 39 suicides were reported to the Coroner, and 48 attempted suicides to the police. These figures relate only to Bristol residents who committed or attempted suicide in Bristol.

The following table is an analysis of the 1958 cases:—

	Suicide		*Attempted Suicide*		*Total*		*Male and*
	Male	*Female*	*Male*	*Female*	*Male*	*Female*	*Female*
Poisoning:—							
Coal gas	7	15	6	5	13	20	33
Aspirin	–	–	–	2	–	2	2
Narcotic	–	1	–	–	–	1	1
Unspecified "tablets"	–	–	11	10	11	10	21
Drowning	–	–	1	–	1	–	1
Cutting throat	3	1	2	1	5	2	7
Cutting wrists ..	1	–	7	–	8	–	8
Hanging	5	–	–	–	5	–	5
Jumping from window	1	–	–	1	1	1	2
Jumping from bridge ..	1	–	1	–	2	–	2
Jumping from rocks ..	2	1	–	–	2	1	3
Jumping under vehicle..	–	1	–	1	–	2	2
	20	19	28	20	48	39	87

The age incidence was as follows:—

Age Group	*Suicide* *Male*	*Suicide* *Female*	*Attempted* *Male*	*Attempted* *Female*
Under 20 ..	–	1	1	1
20–29	1	1	3	2
30–39	1	4	6	3
40–49	1	1	5	6
50–59	5	4	4	3
60–69	5	8	4	3
70–79	5	–	2	1
80 + ...	2	–	3	1

Anticipatory Guidance Service

Dr. Lumsden Walker, Consultant Psychiatrist, reports:

The name provisionally chosen for this service is, we hope, partly indicative of its purpose. In the field of mental health the country is becoming, as a consequence of recent publicity, increasingly aware of the possible evil consequences of emotional stress, unhappiness and serious anxiety within the family circle. Such strains upon the successful functioning of the family may at times seriously disturb the stable emotional development of the young child. This in turn may lead to nervous illness of varying degrees of severity in later life. It is hoped, by guidance and advice and where necessary, actual treatment of presenting symptoms, to anticipate the occurrence of nervous illness in the child, preventing its onset, or helping to alleviate it in its early stages.

During this year we have attempted to extend the scope of such work into the Health Clinics on the periphery of the City. This, it is hoped, will serve several purposes.

The shorter journeys should encourage parents to attend, and to bring their younger children when these are presenting symptoms. It should also allow ready consultation with those medically interested in the population of the adjacent area, particularly with the family doctor and the health visitor. As staff available expands, the important liaison with the Child Guidance Clinic, and through the educational psychologist, with the schools, must be extended.

At the beginning of the year the service operated was very much a token one. We had available one whole-time psychiatric social worker (Miss Laver) and two sessions of a psychiatrist's time (Dr. Walker). This meant that in only two clinics could one attempt to help, and only with the most obvious problems.

By early summer the service was increased by the addition of two further sessions of psychiatric time (Dr. Coulsting).

By the end of the summer we were joined by our Senior P.S.W., Miss Stubbs, and our third P.S.W., Miss Birkett. It then became possible to operate in several centres; although still on a limited scale.

By the end of the year, we had consultative and advisory clinics operating at Hartcliffe, Broadfield Road, Knowle, at Charlotte Keel and Southmead Clinics. Regular case conferences are now held whenever possible, allowing on-the-spot discussion of problems of origin and treatment of nervous symptoms with both the health visitors and doctors in the clinic. Many cases are referred by the family doctor. In other cases, where symptoms of early stress have been first brought to the notice of others, the family doctor has consented to the investigation, and reports have been sent. One would hope as the service extends, that the family doctor will use the service to an ever-increasing extent, and time permitting, might even be able to join in case discussion.

By the end of the year, the Education Committee agreed to a functional integration of the old-established Child Guidance Service with the new Anticipatory Guidance Service, and plans were made to share personnel. In this way some of our P.S.W. staff were able to see cases in the Child Guidance Clinic, while a P.S.W. from the Child Guidance Clinic was able to work at Knowle, and in addition to prepare to take over, at the William Budd Clinic, the work from which Mrs. Bodman had to retire. Our sincere thanks must go to Mrs. Bodman for all the help she has given us in the last few years in the inservice training she has given to members of the health visiting staff.

It is hoped that we may be able to extend this concept of an integrated preventive service, whose purpose will be the investigation and alleviation of mental health problems in children of all ages from early toddler years to the end of school life.

The principle of case-discussion with the workers on the spot is of the first importance and is well worth the time it may take. It is in this way that those working in fields outside mental health will becoming increasingly aware of the problems, and to an increasing extent, able to help. We have to realise that in mental health problems of childhood, others besides the doctor and nurse may be involved. The School Health Service and the Children's Department are only two examples of other important groups concerned.

Anyone who has seen the national figures for mental ill-health will realise the enormous size of the problem and the pressing need not only for this service but also for the fullest co-operation between the service and all others concerned with this work. We can recognise that this past year is a beginning, but we are still understaffed. Even more urgent, however, is the provision of accommodation in Clinics suitable for interviewing children and parents, and for play treatment of the nervous child who is so easily upset by the normal consultation or treatment-room atmosphere.

The following figures cover approximately the number of new cases which were referred and seen during the year 1958, and the number of current ones which received treatment or help in one form or another, i.e., treatment by a psychiatrist, P.S.W., or supervision and/or advice in handling by a P.S.W., or passed on to other agencies or social workers or health visitors, etc. At this stage in the development of our work it has not been possible to assess and analyse our results, but we aim to present such statistics for next year's annual report.

No. of new cases referred during 1958	219
No. of current cases (28 carried over from 1957) ..	247

Statistical Tables

(i) Total Mental Defectives known to Local Health Authority at 31st December, 1958

	Male	Female	Total
(*a*) *Under Mental Deficiency Acts:*			
In hospitals and on licence:			
(Under Order)	327	314	641
(Informally)	38	25	63
Under Guardianship	8	4	12
Under Supervision	512	411	923
Totals	885	754	1639
(*b*) *Not under Mental Deficiency Acts:*			
Pending ascertainment	21	17	38
Discharged from Order (after-care) ..	65	60	125
Totals	86	77	163
All known cases	971	831	1802

(ii) Cases Referred as Mentally Defective During 1958

	Male	Female	Total
(*a*) *Referred by:*			
Local Education Authority	43	30	73
General Medical Practitioners	–	2	2
Courts or Police	4	–	4
Others	13	10	23
Totals	60	42	102
(*b*) *Disposal:*			
Admitted to Mental Deficiency Hospitals	9	7	16
Placed under Supervision	25	20	45
Action not yet taken:			
School Leavers	10	7	17
Others	11	6	17
Action unnecessary:	3	2	5
Died	2	–	2
Totals	60	42	102

(iii) Analysis of Mental Defectives in Hospital (including those on Licence)

	Male	*Female*	*Total*
At 31st December, 1957	344	339	683
Admissions during 1958:			
From Supervision	22	10	32
From Guardianship	–	–	–
Others	14	9	23
	36	19	55
Methods of Admission:			
Section 3 M.D. Act	7	4	11
Section 6 ,, ,,	5	4	9
Section 7 (2) ,, ,,	1	1	2
Section 8 ,, ,,	3	–	3
Section 9 ,, ,,	1	–	1
Informal admissions	19	10	29
	36	19	55
Discharges during 1958:			
By order of Board of Control	30	43	73
By operation of law	7	3	10
	37	46	83
Remaining informally	28	35	63
	9	11	20
Discharged from informal care	5	2	7
Died	3	4	7
	17	17	34
Remaining in Hospital at 31st December, 1958	363	341	704

(iv) Analysis of Mental Defectives under Guardianship

	Male	*Female*	*Total*
At 31st December, 1957	25	16	41
Discharged during 1958:			
By order of Board of Control	15	12	27
By operation of law	2	–	2
Totals	17	12	29
Remaining under Guardianship at 31st December, 1958	8	4	12

(v) Analysis of Mental Defectives under Supervision

	Male	*Female*	*Total*
At 31st December, 1957	514	397	911
Added during 1958:	58	43	101
Removed during 1958:			
Discharged from Supervision	22	10	32
Admitted to Mental Deficiency Hospital	23	14	37
Left District	11	4	15
Died	4	1	5
Totals	60	29	89
Remaining at 31st December, 1958	512	411	923

(vi) Bristol Patients in Mental Hospitals at 31st December, 1958

	Male	*Female*	*Total*
Certified patients	264	372	636
Voluntary patients	353	358	711
Temporary patients	1	–	1
Totals	618	730	1348
In Dundry Villas Neurosis Unit	24	32	56
In Pritchard House	–	78	78
Totals	24	110	134

(vii) Persons Receiving Psychiatric After-Care from Local Health Authority at 31st December, 1958

	Male	*Female*	*Total*
Ex-Service	15	–	15
Ex-Mental Hospitals	23	12	35
Others	8	8	16
Totals	46	20	66

(viii) Mental Illness—Cases dealt with by Mental Welfare Officers during 1958

	Under 20		20–29		30–39		40–49		50–59		60–69		70–79		80 and over		All Ages		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
A. Removed to Observation Ward under Section 20 of Lunacy Act 1890:—																			
Transferred to Bristol mental hospitals as certified patients ..	–	–	7	4	5	14	4	8	4	13	2	6	–	6	2	2	24	53	77
Transferred to other mental hospitals as certified patients ..	–	–	1	–	1	3	–	2	–	1	1	–	–	–	1	–	4	6	10
Transferred to Bristol mental hospitals as voluntary patients ..	3	1	4	7	9	7	13	13	15	15	10	12	10	6	2	–	66	61	127
Transferred to other mental hospitals as voluntary patients ..	–	–	1	–	4	–	1	1	–	1	2	1	–	–	–	1	8	4	12
Transferred to Bristol mental hospitals as temporary patients ..	–	–	–	–	–	1	1	–	1	1	–	1	–	–	–	–	2	3	5
Transferred to other mental hospitals as temporary patients ..	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1	–	1
Transferred to Dundry Villas Neurosis Unit	–	–	–	1	–	1	–	–	1	–	–	–	–	–	–	–	1	2	3
Transferred to Pritchard House	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	1	1
Discharged home	1	–	7	4	9	2	7	3	8	4	6	4	9	3	3	3	50	23	73
Transferred to sick wards	–	1	–	1	1	–	–	2	1	3	5	5	9	13	4	15	20	40	60
Referred to Welfare Services Department	1	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	2	1	3
Referred back to Police	–	–	1	–	1	–	–	1	–	–	–	–	–	–	–	–	2	1	3
Died before further action taken	–	–	–	–	–	–	–	1	2	–	4	2	9	2	3	5	18	10	28
Total number of Section 20 cases	5	2	21	17	31	28	26	31	32	38	30	32	38	31	15	26	198	205	403
B. NOT dealt with under Section 20 of the Lunacy Act, 1890:—																			
Certified direct admissions to mental hospitals	–	–	1	–	1	–	–	–	–	4	1	–	1	1	–	–	4	5	9
Voluntary direct admissions to mental hospitals	1	1	2	1	2	3	5	2	3	5	2	7	2	1	2	–	19	20	39
Temporary direct admissions to mental hospitals	–	–	–	1	–	1	–	–	–	1	–	–	–	–	–	–	–	3	3
Urgency Orders (subsequently certified)	–	–	–	–	1	1	–	–	–	2	1	1	1	–	–	–	3	4	7
Dundry Villas	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	1	–	1
Provided with care other than under Lunacy and Mental Treatment Acts	2	2	3	5	11	15	15	11	14	19	9	19	14	27	10	17	78	115	193
Total number of cases not under Section 20	3	3	6	7	15	20	21	13	17	31	13	27	18	29	12	17	105	147	252
Total cases dealt with (*A.* and *B.*)	8	5	27	24	46	48	47	44	49	69	43	59	56	60	27	43	303	352	655

Admissions to Mental Hospitals	M	F	Total
Certified	35	68	103
Voluntary	93	85	178
Temporary	3	6	9
Total	131	159	290

PREVENTION OF ILLNESS, CARE, AND AFTER-CARE

TUBERCULOSIS

Dr. D. J. Sheerboom
(*Assistant Medical Officer*)

In 1958 the arrangements for the prevention and after-care of tuberculosis continued as in previous years.

Once again the notification figures showed an improvement on the previous year, but still indicate that preventive measures should in no way be relaxed. Deaths due to the disease were slightly higher than in the previous year, with 37 due to pulmonary tuberculosis (31 in 1957) and 7 due to non-pulmonary tuberculosis (5 in 1957). New notifications again showed a moderate decrease in pulmonary tuberculosis, 271 as against 301 in 1957, but for non-pulmonary the figure was the same, namely 36.

Nine per cent. of the 13 year old children tested showed a positive tuberculosis test compared with 10·9 in the previous year. The annual decline in this figure is most satisfactory, probably indicating a diminishing amount of undiscovered tuberculosis in the community.

However, there is still no room for complacency and all possible measures should be undertaken to try and find all active cases in the community. Since the war, the ages at which the disease is most often found have altered. In women, the commonest age group is still between 15–30 years, but in men it has now moved to the over 40's. This may mean some changes of ideas as to how to obtain x-rays of as many men in this age group as possible.

The Mass Radiography Service took 50,088 miniature chest x-rays in Bristol in 1958. Amongst these 94 cases of active tuberculosis were found and a further 83 cases are still under observation. As is usual in static mass x-ray work, the highest number of cases were found in general practitioner referred cases.

All susceptible contacts were again offered B.C.G. vaccination, the majority being given at either Southmead Hospital or at the Central Clinic. The figures were 247 and 769 respectively, which are almost identical with 1957.

In 13-year-old school children, consent for B.C.G. vaccination was obtained from 3,573, a rise of 400 from the previous year. The number receiving vaccination was 3,251, as compared with 2,841 in 1957. As stated above, there was a fall in positive reactors from 10·9 to 9 per cent. The good acceptance rate is due almost entirely to the co-operation of Head Teachers, and it is to be hoped that this co-operation will continue. In some schools, the rate has actually reached the excellent figure of 99 per cent.

There have been no extensive surveys of the general public carried out in Bristol in 1958.

Once again there has been a very close liaison between the staff of the Health Department, especially the tuberculosis visitors and welfare officers, with the consultant chest physicians at the Chest Clinic. Every other week, a combined meeting is held so that all problems, whether clinical, housing or general welfare, etc., can be discussed to the benefit of the patient and his family.

The Care and After-Care of Patients and their Families

Mr. C. L. Bryant, the Executive Officer of the Tuberculosis Service, is also Honorary Secretary of the Bristol Tuberculosis Voluntary Care Committee. This arrangement and the close co-operation of the welfare officers with other Corporation departments and national organisations serve to ensure that patients and their families receive all the assistance available to them.

During 1958 application forms were issued to 326 patients for allowances payable to certain cases of pulmonary tuberculosis by the National Assistance Board.

Under the Council's scheme, free milk, usually two pints a day, was granted to an average of 312 patients a day on medical recommendation and subject to an income limit.

Housing conditions in 82 families were such that support was given to an application for rehousing and 55 families were rehoused.

Other sources of help include the Ministry of Pensions and National Insurance for sickness benefit and disability pensions, the Bristol District Nursing Association for home nursing, the Council's Home Help Service for domestic help, and the Children's Officer for boarding out children.

These sources do not meet all the needs discovered by the chest physicians, welfare officers and tuberculosis visitors. During 1958 the Tuberculosis Voluntary Care Committee made 253 grants of clothing, footwear, bedding, or cash. The Committee also continued to hold occupational therapy classes and their occupational therapist visited in their homes patients who were unfit to attend the classes.

Most patients can return to normal employment after treatment. Those who cannot do so are advised to register with the Ministry of Labour under the *Disabled Persons* (*Employment*) *Act*. The Disablement Resettlement Officers of the Ministry then place them directly into suitable employment, or after a time at an Industrial Rehabilitation Unit, or possibly at a Government Training Centre. The Special Remploy Factory at Southmead provided sheltered employment under medical supervision for an average of 60 men and women during 1958.

The Voluntary Care Committee provided suitable employment for 13 ex-patients at kiosks for the sale of tobacco, cigarettes, stationery, confectionery, etc., in hospitals.

The foregoing briefly indicates the variety of activities undertaken by the Council in co-operation with the hospital services, the Tuberculosis Voluntary Care Committee, and other bodies, so as to ensure proper care of the tuberculous patient from the day of diagnosis.

This care and after-care work takes its place as a preventive measure alongside the others which are applied to members of his family and to the community at large. None of them should be relaxed, since all contribute to the effort to eradicate tuberculosis.

VENEREAL DISEASES

Dr. A. E. Tinkler

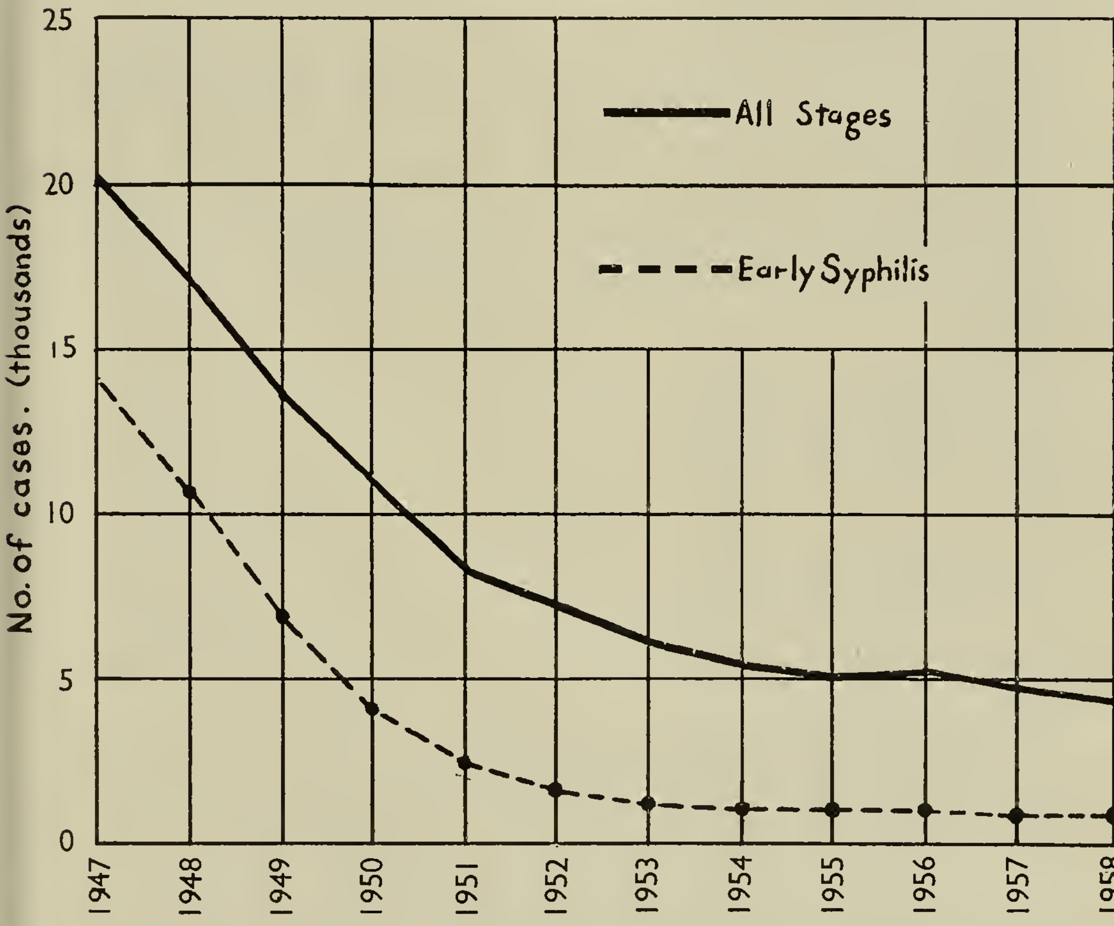
(*Director, Maudlin Street Clinic*)

During 1958 the venereal diseases continued trends of incidence similar to those of the previous few years, viz., a decrease in the number of cases of syphilis, a further significant rise in the incidence of gonorrhoea, and a slight but steady increase in the number of non-specific infections referred to the clinics.

Table I—Number of Cases of Gonorrhoea Referred to Clinics, 1954–58

		Bristol Clinics	
	England and Wales	*All cases*	*Bristol residents*
1954	17,511	227	131
1955	17,681	281	158
1956	20,311	249	151
1957	24,352	257	152
1958	27,915	354	233

Number of Cases of Syphilis Referred to Clinics in England and Wales, 1947–58



The number of Bristol cases of (*a*) early syphilis and (*b*) late syphilis referred to the clinics in the Bristol area remains very low.

Table 2—Syphilis Analysis of New Registrations (Bristol Cases) 1948 - 58

	Early Syphilis			Late Syphilis		
	Male	*Female*	*Total*	*Male*	*Female*	*Total*
1948 ..	54	43	97	32	14	46
1949 ..	48	17	65	39	23	62
1950 ..	17	10	27	31	42	73
1951 ..	17	4	21	26	21	47
1952 ..	18	5	23	36	20	56
1953 ..	12	2	14	16	19	35
1954 ..	6	1	7	18	16	34
1955 ..	6	2	8	12	14	26
1956 ..	7	6	13	16	18	34
1957 ..	9	5	14	17	21	38
1958 ..	7	2	9	10	9	19

Congenital Syphilis

The incidence of congenital syphilis reflects the degree of co-operation between the ante-natal and V.D. services.

In the past, congenital syphilis was responsible for considerable infant mortality and morbidity. It is, therefore, gratifying to record another year in which no cases of this disease under the age of 1 year were registered in the clinics of the Bristol area and no deaths of infants, attributable to this disease, occurred in England and Wales.

In 1958, 230 ante-natal cases were referred from the Central Health Clinic to the Special Diagnostic Clinic. From these, five cases of maternal syphilis, in Bristol residents, were discovered and treated, thus preventing possibly five cases of infantile congenital syphilis.

Five cases of congenital syphilis (1 male, 4 females), all over the age of 1 year, were referred to Bristol clinics in 1958. The corresponding figure for England and Wales as a whole was 413. These figures represent a failure in previous years to discover and treat acquired syphilis in that number of expectant mothers.

Other Conditions

The following were the total new registrations of "other conditions" at Bristol clinics during 1957 and 1958.

	1957			*1958*		
	Male	*Female*	*Total*	*Male*	*Female*	*Total*
Chancroid	24	–	24	26	1	27
Non-specific Urethritis	205	–	205	223	–	223
Other Conditions	718	590	1308	767	609	1376

The following report has been contributed by Miss Gwyneth Stinchcombe, the medico-social worker.

The most gratifying result of the social worker's activities during the year has been the substantial increase in the number of contacts to infection persuaded to attend clinic; 48 male contacts in 1958 as against 19 in 1957, an increase of 150 per cent., and 118 female contacts as against 87 in 1957, an increase of 35 per cent. In many instances, notwithstanding a lack of detailed information available, perseverance, patience, and diplomacy have played their part in the success of this vital aspect of social work. Out of a total registration of 1,414 males, and 462 females, only 325 males and 86 females needed specific treatment, representing a rate of less than one per 1,000 of the population.

The default control, too, has shown a marked improvement compared with 1957, although the total number of new registrations in 1958 was higher than the previous year. The number of male patients refusing to return after initial treatment showed a sharp rise, due, no doubt, to the efficacy of the treatment given.

Another encouraging feature of the social work is the obvious appreciation of both sexes in being interviewed and advised by a female social worker. This is particularly noticeable when marital problems come to be sorted out, or engaged couples need special help. No difficulties have been encountered, indeed the male patients are most courteous and co-operative.

Rehabilitation continues to be a feature of the clinic set-up, and the V.D. Voluntary Care Committee have again given generous financial assistance at Christmas and in a number of necessitous cases.

Lectures and talks were given throughout the year to students and various professional and other bodies, thus providing opportunities for the social aspects of venereal disease to reach a wider public.

The following figures indicate the statistical result of the year's work:

	Males			*Females*		
	Bristol	*Other Area*	*Total*	*Bristol*	*Other Area*	*Total*
Total number of Registrations during 1958	1,279	135	1,414	406	56	462
New cases persuaded by Social Worker to attend	44	4	48	107	11	118
New cases admitted through other agencies	1,235	131	1,366	299	45	344
Number of cases appearing on Social Worker's Register during the year	1,279	135	1,414	406	56	462
Social Worker's attendances at clinics	*Male and Female*			436	—	436
New cases interviewed in clinics	201	18	219	298	39	337
Current cases interviewed in clinics	162	23	185	564	51	615
In-patients interviewed in wards	85	25	110	142	17	159
Contact tracing visits	75	—	75	233	—	233
Default visits	185	—	185	267	—	267
Blank visits (*a*) New cases ..	19	—	19	56	—	56
(*b*) Default ..	46	—	46	54	—	54
Visits for other purposes ..	*Male and Female*			389	—	389
Total visits, including those for other purposes	*Male and Female*			1,324	—	1,324
Number of letters sent by social worker: (*a*) to New cases ..	1	—	1	10	—	10
(*b*) to Defaulters ..	196	—	196	295	—	295
(*c*) Others	42	—	42	72	—	72

	Infections	*N.V.D.*	*Total*
Male Diagnoses	325	1,089	1,414
Female Diagnoses	86	376	462

Default Control — 1958

	Males		*Females*	
No. of patients registered in 1958 defaulting	47		36	
No. of other patients defaulting	71		110	
	118		146	
No. of actual defaults involved		135		188
No. of patients who returned for treatment	81		112	
No. of patients who did not return	37		34	
Disposal of Balance:				
Transferred to other clinics outside Bristol area	2		5	
Refused to attend again	25		8	
No trace	5		6	
Died	—		1	
Carried forward to 1959	5		14	
	37		34	

Female Contact Tracing

Total number of Contact Cards received					96
Traced and examined	51	representing	62	cards	
Traced, but refused examination	4	,,	7	,,	
Forwarded to other Authorities			2	,,	
Insufficient evidence to forward			2	,,	
Untraceable			21	,,	
No action			2	,,	
			96	,,	

Notes

Of the 2 notifications forwarded to other authorities, replies indicated that one contact was traced and treated, the other was untraceable.

Of the 55 local contacts traced, representing 69 cards, 9 were named twice, two three times, and one four times.

Information on the traced cards reads as follows:—

Name and address	46
Christian name only	8
Address, no name	1
Full name, no address	14
	69

Result of Diagnosis
Out of 51 patients examined, 29 female diagnoses agreed with the male diagnoses and 22 were non-venereal.

Information on the untraceable cards was as follows:—

Christian name and description only	10
Description only	8
Full name and description	2
Full name and ? address	1
	21

Male Contact Tracing

Total number of Contact Cards received		34
Traced and examined	19	
Traced, and refused examination	2	
Forwarded to other Authorities	2	
Insufficient evidence to forward	—	
Untraceable	3	
No action	8	
	34	

Notes

Of the 2 notifications forwarded to other authorities, replies indicated that one contact was traced and treated, and one was unable to be dealt with owing to lack of a suitable worker to investigate.

Information on the traced cards reads as follows:—

Full name and address	10
Christian name only	2
Address, no name	1
Full name, no address	8
	21

Result of Diagnosis
Out of 19 patients examined, 12 male diagnoses agreed with the female diagnoses and 7 were non-venereal.

Information on the untraceable cards was as follows:—

Full name, no address	1
Description only	2
	3

Homosexuals

Four notifications received, three traced and examined. One diagnosis agreed with original patient, two were non-venereal and one was untraceable.

THE AMBULANCE SERVICE

The following report has been submitted by Mr. R. F. F. Wood, Chief Ambulance Officer:

Whilst acknowledging the fact that the phrase "vital statistics" has in this modern era a double and by no means misunderstood meaning, no apologies are made for including in this year's report statistics which are without doubt vital as far as the Ambulance Service is concerned.

Table 1 shows the number of cases conveyed during each month of the year by the vehicles of the Ambulance Service and also those of supplementary services of the Hospital Car Service and Taxi Association. The grand total of 150,576 cases is a decrease of 879 compared with the figure of 151,455 for the previous year. It also indicates that out of the total of 150,576 cases, approximately 99 per cent. were conveyed in vehicles belonging to the Bristol Ambulance Service.

Table 2 indicates that the total mileage run throughout the year was 768,644, and compared with the figure for 1957 this shows a decrease of 13,971 miles. The table also shows that of the total mileage approximately 98 per cent. was covered by vehicles of the Ambulance Service.

Table 3 simply indicates the number of patients for whom arrangements were made to use rail transport. The figure of 124 is an increase over previous years and whilst this is not large when compared with the total number of patients carried, it has meant a saving in vehicle mileage of 13,345 miles which is invaluable when translated into terms of the saving in man hours and ambulance availability.

Fig. 1 indicates quite clearly that from 1952 when the service was transferred to the Health Department the number of patients has remained fairly constant and that the mileage figure has shown a steady and progressive decrease.

The actual figures for each year are shown in the table accompanying the graph and from this table it will be seen that there has also been a steady reduction in the miles per patient figure. In fact taking the figures of 1958 and 1952 there has been a reduction of 1·47 miles per patient.

Fig. 2 indicates the division of patients and mileage between the Ambulance Service and the supplementary services. It shows quite dramatically the reduction in the number of cases passed to the supplementary services. It also shows that the miles per patient figure for the ambulance service is 5·07 whereas that of the supplementary services is 8·04. The higher figure for the supplementary services is attributable to the fact that the majority of long distance sitting cases are conveyed in cars of the Hospital Car Service.

Hospital Liaison

It is pleasing to record that there has been a good measure of co-operation between hospital authorities and the Ambulance Service throughout the year. As a result of such co-operation and daily liaison which is an established feature of the service, appointment times have been streamlined as far as possible and calls upon the service kept to a minimum. The experiment of maintaining an officer of the Ambulance Service at one of the larger hospitals in the City has proved valuable in many ways and is being continued pending a final decision by Committee.

Adjoining Authorities

The arrangements which exist between Bristol and the adjoining Authorities of Gloucestershire and Somerset have again worked well and resulted in a considerable saving in mileage and use of vehicles.

Supplementary Services

Although the number of cases passed to the supplementary services of the Hospital Car Service and the Taxi Association has been kept to a minimum the response has always been prompt and the cases conveyed in an efficient manner. The British Railways have again given excellent service in providing accommodation, often at short notice, for those patients who are conveyed long distances by rail. With modernisation where diesel trains are replacing steam it is becoming more and more difficult to obtain through bookings to certain places. As a result ambulance services generally are faced with the prospect of longer and more frequent journeys by road. For the moment in the western region in particular every attempt is made to assist the Ambulance Service and the efficient manner in which cases are dealt with is much appreciated by all concerned.

Escorts

It has been necessary to call upon the voluntary organisations of the British Red Cross Society and the St. John Ambulance Brigade from time to time throughout the year for the provision of escorts for patients travelling by rail, and it is fitting that tribute should be paid to those who have carried out these responsible duties, often under difficult and trying circumstances and in some instances at very short notice.

New Vehicles

During the year four ambulances and four sitting case vehicles were purchased. One of the ambulances, a Dennis (petrol engine type), was fitted with twin berth loading gear in addition to the normal bench type sitting/stretcher gear, making it capable of conveying three stretcher cases or two stretcher cases and five sitting cases.

Training

A training school was organised from January to March for all members of the peace time service. The syllabus not only included items directly concerned with the day to day working of the Ambulance Service, but in addition, advantage was taken to bring all members up to date in Civil Defence training and practice. At the end of each course there was a practical quiz and a driving test in which all members of the Service took part.

A team was entered for the annual competition of the National Association of Ambulance Officers held this year in Bath. Despite gaining maximum bonus marks for speed in the removal of the patient in the main test the team did not obtain one of the major awards. In the National Safe Driving Competition organised by the Royal Society for the Prevention of Accidents one driver obtained an Oak Leaf Bar for 11 years free from accident, thirteen obtained a bar to a 5-year medal, two a 5-year medal and 38 were awarded certificates. This makes a total of 54 drivers who obtained awards in 1958.

Avonmouth Docks Ambulance

The agency agreement with the Avonmouth Docks Ambulance Committee again worked well throughout the year and in addition to the normal work inside the dock area, the ambulance responded to fifty emergency calls in the Avonmouth village area.

Vehicle Maintenance

The ambulance fleet is maintained by the Corporation Transport Department and thanks are due to Mr. H. M. Ellis and his staff for the work put in throughout the year in keeping all vehicles in top line condition.

Table 1

Bristol Ambulance Service and Supplementary Services Statistics for 1958

Total Number of Cases

	Bristol Ambulance Service					*Supplementary Services*		
Month	*Accidents*	*Maternity*	*Inf/d.*	*General*	*Total*	*Taxis*	*H.C.S.*	*Grand Total*
January	481	312	133	11,912	12,838	66	87	12,991
February	449	255	129	11,179	12,012	104	72	12,188
March	531	308	95	11,357	12,291	66	173	12,530
April	520	245	104	11,001	11,870	61	110	12,041
May	575	243	91	12,538	13,447	77	93	13,617
June	528	235	76	11,505	12,344	44	103	12,491
July	606	220	105	11,779	12,710	30	121	12,861
August	576	220	46	9,885	10,727	19	37	10,783
September	581	212	60	11,181	12,034	28	97	12,159
October	563	277	80	12,498	13,418	27	80	13,525
November	524	253	81	11,889	12,747	29	70	12,846
December	566	289	94	11,497	12,446	41	57	12,544
Totals	6,500	3,069	1,094	138,221	148,884	592	1,100	150,576

Table 2

Mileage

	Bristol Ambulance Service			*Supplementary Services*		
Month	*Ambulances*	*Dual Purpose*	*Total*	*Taxis*	*H.C.S.*	*Grand Total*
January	43,736	21,401	65,137	432	719	66,288
February	39,359	19,692	59,051	640	1,383	61,074
March	42,124	21,164	63,288	448	1,139	64,875
April	42,215	20,087	62,302	530	1,177	64,009
May	43,977	20,841	64,818	502	732	66,052
June	38,781	22,139	60,920	278	948	62,146
July	42,210	24,221	66,431	174	741	67,346
August	39,023	20,318	59,341	158	600	60,099
September	41,188	20,623	61,811	228	1,014	63,053
October	44,337	21,699	66,036	212	390	66,638
November	41,261	21,083	62,344	174	260	62,778
December	42,899	20,670	63,569	256	461	64,286
Totals	501,110	253,938	755,048	4,032	9,564	768,644

Table 3

Patients by Rail

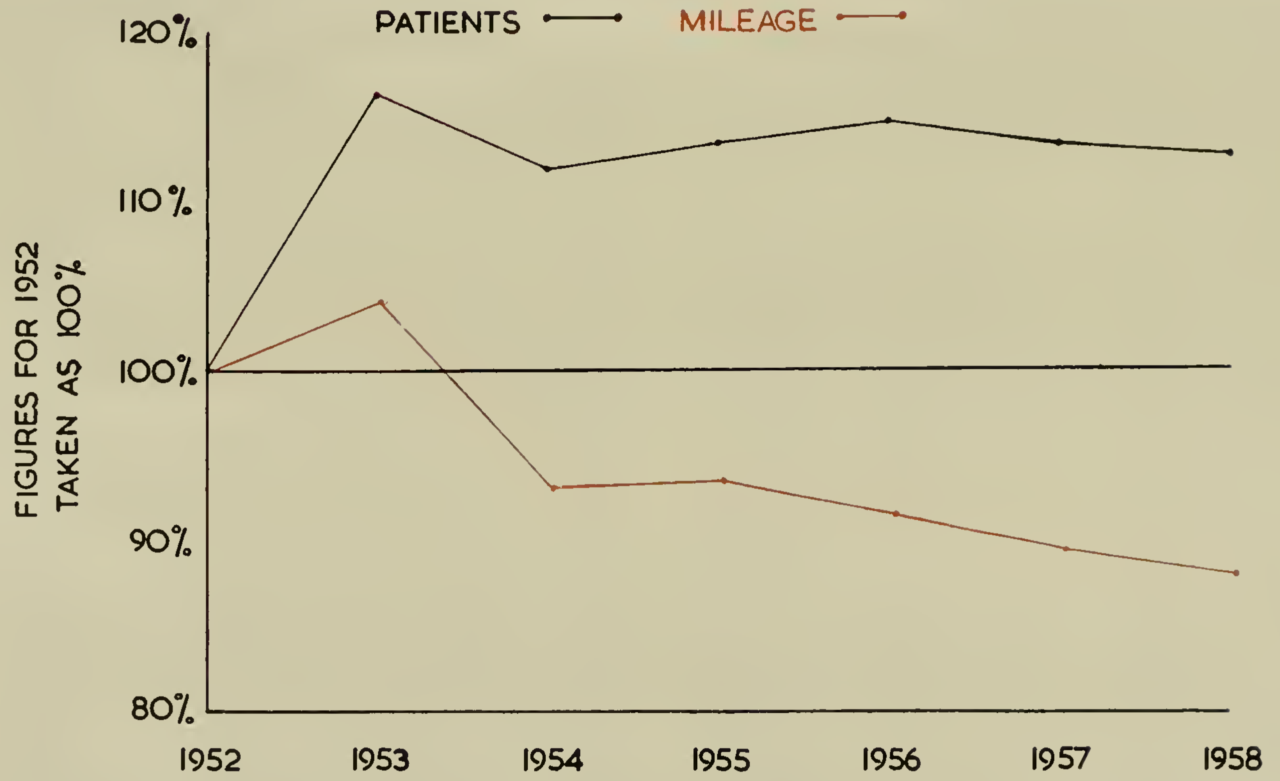
Patients, 124. Mileage, 13,345.

Table 4

Miles per patient

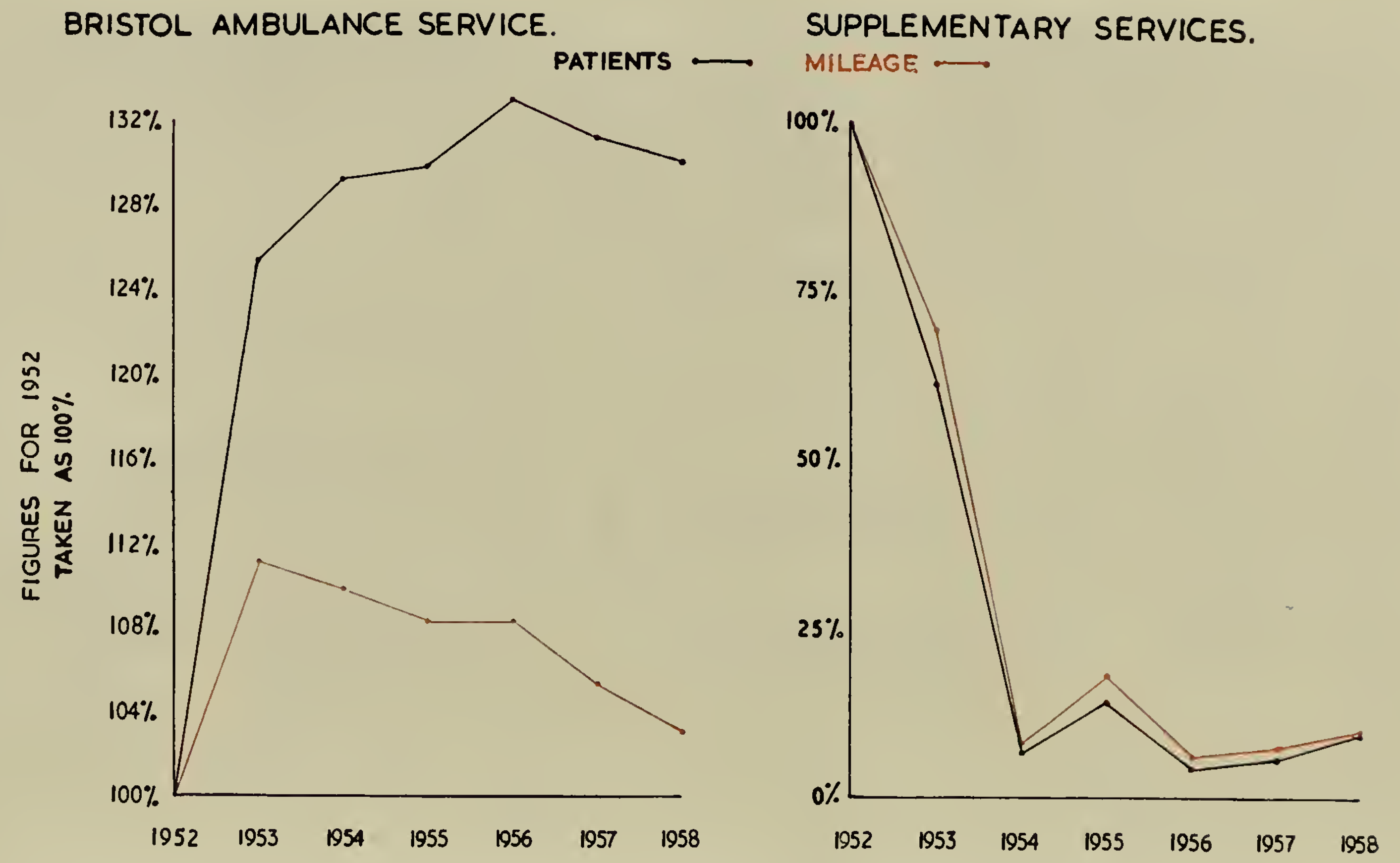
5·10.

BRISTOL AMBULANCE AND SUPPLEMENTARY SERVICES.



	1952	1953	1954	1955	1956	1957	1958
PATIENTS	133,442	155,188	149,279	151,443	153,228	151,455	150,576
MILEAGE	877,197	914,015	816,035	819,296	801,556	782,615	768,644
M: PER PAT:	6·57	5·89	5·47	5·41	5·23	5·17	5·10

FIG. 1



PATIENTS	114,554	143,590	147,990	148,720	152,386	150,341	148,884		18,888	11,598	1,289	2,723	842	1,114	1,692
MILEAGE	731,969	813,353	804,662	792,847	792,405	771,670	755,048		145,228	100,662	11,373	26,449	9,151	10,945	13,596
M: PER PAT:	6·39	5·66	5·44	5·33	5·20	5·13	5·07		7·69	8·68	8·82	9·71	10·87	9·82	8·04

FIG. 2

ENVIRONMENTAL HEALTH SERVICES

The work of the Public Health Inspectorate touches the lives of the people in many ways, including the maintenance of good housing conditions and the safeguarding of food supplies at all stages of production and distribution. In addition, the cleanliness of atmospheric conditions in the City has been receiving increased attention. When it is realised that thousands of meals are taken in canteens and restaurants daily with but few complaints, that millions of gallons of water are consumed safely, that the air of this industrial city is now cleaner and that unfit houses and basement dwellings are being demolished or closed, it will be seen that reasonable health measures are being applied so as to ensure, as far as possible, that good health is enjoyed by all Bristol citizens.

At the same time, it is true to state that very few people are aware of the organisation and effort required to keep them healthy in large centres of population. So far as food hygiene is concerned every effort is being made to reduce the need for prosecution by the fostering of a new outlook which in many ways will encourage the seller to adopt and the buyer to require the observance of sound public health principles.

During the year inspection of unfit houses for clearance procedure proceeded as rapidly as circumstances would permit. Details of the houses represented by the Medical Officer of Health will be found in another part of the report but it should be noted that a considerable amount of time was taken up by the staff attending Public Inquiries in connection with houses previously represented.

The use of colouring matters, anti-staling agents and various other additives to food which have the effect of increasing its attractiveness and shelf life is a subject which must be carefully watched by all public health officers.

So far as colouring matters used in food are concerned we now have a list of permitted colours which are subject to review from time to time, but much research needs to be done for the guidance of those concerned with the proper administration of our food laws. The Food and Drugs Act, 1955, enables the Ministers of Health, Agriculture, Fisheries and Food, to make regulations as to the composition of food in the interests of public health and provides that where any food is certified by a public analyst as being food to which the regulations apply, that food may be treated and dealt with as being unfit for human consumption. This clause is far reaching and is one, together with the necessary regulations, about which we are likely to hear much more in the future. The importance of sampling and analytical progress throughout the country cannot be emphasised too strongly if we are to keep abreast of the situation.

In this age of science there are other aspects of food control which will need close attention and it has already been pointed out that the advent of anti-biotics in food preservation has confronted us with new public health problems.

There are possibilities, too, in the use of radio-activity for disinfestation and sterilisation of foods but it is known that nuclear energy used for food processing would not introduce radio-activity in the foods themselves, although much remains to be done to prove whether or not any bio-chemical changes might be introduced in foods treated by irradiation techniques.

Here again the 1955 Food and Drugs Act anticipated changes in food production methods and composition, in that for the purposes of the Act in determining whether an article of food is injurious to health, regard shall be had not only to the probable effect of that article on the health of the person consuming it but also to the probable cumulative effect of articles of substantially the same composition on the health of persons consuming such foods in ordinary quantities.

Considerable attention has been given during the last year or so to the need for 100 per cent inspection of all carcases and organs of animals slaughtered for human food. Fortunately, the situation in Bristol is that this desirable standard has been maintained for many years and the City is looked upon by the meat trade as an excellent slaughtering and meat distribution centre.

The amount of meat condemned as unfit for human consumption under normal conditions has shown a steady decrease. This is, no doubt, due to improved farming methods and the valuable work being carried out on animal health by the veterinary profession. The scheme now proceeding in this country for the reduction of tuberculosis in cattle is going forward with success and a number of affected animals removed from herds in the western area were slaughtered at the Public Abattoir. This work was reflected in the amount of meat condemned during the year but in time it is obvious that the amount of diseased meat will fall to much smaller proportions.

During the year the Chief Public Health Inspector reported on the value of a meat marking scheme which would ensure that all meat slaughtered and passed as fit for human consumption would carry a guarantee of inspection. The meat trade generally welcomed this move and as the year drew to its close all arrangements had been made for the scheme to be introduced on 1st January, 1959.

Other moves envisaged include the establishment of a clearing house for meat coming into the City under powers granted in a Bristol Corporation Act, and this, with changes brought about by the new Slaughterhouse Act and Regulations, are matters which will call for close attention by the Health Committee in the near future.

Once again it is a pleasure to record my appreciation of the way in which all members of the staff contributed to the year's work and this was in no small measure assisted by the team work and happy relationship which is maintained with other Corporation Departments.

Examination Successes during the year by Officers of the Section

The following further qualifications were obtained by Officers of the Section during the year:

Public Health Inspectors' Education Board: Certificate for Public Health Inspectors—

M. D. Benwell, J. E. Drew, F. J. Webb, D. J. Barnett (now on National Service).

Local Government Examination Board: Intermediate Administrative Certificate of the Diploma of Municipal Administration—

F. C. Henley, S. F. Huckle.

National Certificate in Building (Ordinary Level)—

M. Dimambro, B. Pepworth.

Repairs to Property in Owner's Default

At the beginning of the year nine cases were outstanding from 1957.

During the year under review thirteen cases were referred to the Defaults Section for consideration.

Of these, nine were repaired by the Corporation's contractor, two cases were not proceeded with, one was in course of repair by the contractor and one case was pending. Eleven orders were issued to various Corporation contractors and accounts totalling £340 17s. 0d. were passed.

Works by Agreement under Section 275 of the Public Health Act, 1936

During 1958, one such case was referred for consideration; orders were issued and accounts totalling £175 12s. 10d. passed.

Public Health Inspections—Sanitation, Housing, Shops Acts, etc.

1957				*1958*		
Visits	*Re-visits*	*Total*		*Visits*	*Re-visits*	*Total*
—	—	3,510	Complaints	—	—	3,212
			Visits:			
4,721	13,414	18,135	Dwelling houses	4,289	11,814	16,103
13	2	15	Houses let in lodgings	4	2	6
3	7	10	Common lodging houses	2	3	5
105	66	171	Food shops—Registerable	132	125	257
780	1,823	2,603	Not registerable	1,061	1,286	2,347
249	444	693	Other shops	146	247	393
80	108	188	Bakehouses	37	96	133
218	345	563	Workplaces and offices	183	480	663
44	78	122	Factories—Non-mechanical	56	48	104
224	362	586	Mechanical	323	439	762
51	19	70	Outworkers	43	31	74
14	25	39	Removal of aged persons	17	68	85
473	959	1,432	Clean Air Act (Smoke observations etc.)	1,390	1,122	2,512
10	32	42	Offensive trades	13	22	35
42	211	253	Entertainment places	37	161	198
35	141	176	Tents, vans and sheds	41	259	300
168	122	190	Keeping of animals	41	94	135
465	173	638	Food inspection	458	187	645
178	182	360	Sites	108	283	391
70	157	227	Institutions, hospitals, etc.	78	128	206
1,037	921	1,958	All other matters	918	1,146	2,064
—	—	—	Infectious disease visits	1	16	17

1957					*1958*			
Intimation	*Statutory*	*Compliance I*	*Compliance S*		*Intimation*	*Statutory*	*Compliance I*	*Compliance S*
				Notices:—				
575	640	268	265	Dwelling houses (P.H.)	350	516	220	324
—	—	—	—	Houses let in lodgings	—	—	—	—
1	—	—	—	Common lodging houses	—	—	—	—
14	—	5	—	Food shops—Registerable	1	—	8	—
131	1	145	2	Non-registerable	37	—	46	—
33	3	38	28	Other shops	6	—	15	1
13	—	8	—	Bakehouses	1	—	4	—
4	—	6	—	Workplaces and offices	11	—	13	—
2	—	—	—	Factories—Non-mechanical	—	—	—	—
32	—	27	1	Mechanical	13	—	16	1
—	—	—	—	Outworkers	—	—	—	—
—	—	—	—	Removal of aged persons	—	—	—	—
3	2	3	3	Smoke observations	—	—	—	5
—	—	—	—	Offensive trades	—	—	—	—
—	—	1	—	Entertainment places	—	—	—	—
1	—	—	—	Tents, vans and sheds	1	—	—	—
2	—	1	—	Keeping of animals	1	—	1	—
2	—	3	2	All other matters	3	—	1	1

Sanitation, Housing, Shops Acts, etc.—Remedial Action

1957		*1958*
	Drainage Works:—	
85	New drains laid	76
594	Drains repaired	294
1,079	Choked drains cleared	737
156	Tests made	204
	Sanitary Conveniences:—	
14	Flushing appliances introduced	12
4	Additional closets fitted	7
1	Separate closets for sexes provided	1
56	New pans fitted	23
5	Action re bathroom and geyser vent	—
6	Urinals fitted	3
183	Other works	102
12	Intervening ventilated space provided	10
24	Cesspools abolished	1
	Water Supplies:—	
11	New and additional installations	2
120	Hot water installed	34
1	Wells closed	—
	Other Sanitary Fittings:—	
26	New sinks fitted	7
7	Additional sinks fitted	1
107	Wash basins provided	33
	Other Works:—	
319	Roofs repaired	274
258	Dampness remedied	141
1,987	Other new and repair works	620
15	Yards paved and drained	7
20	Houses cleansed—dirty	17
112	—verminous	99
1	Food store installed—cooking facilities provided	—
56	Lighting	31
23	Ventilation improved	14
1	Meal rooms provided	2
24	Heating provided	7
—	Exhumations	—
—	Overcrowding—abated	—
	Keeping of Animals:—	
1	Removal of manure	1
—	Provision of manure receptacles	—
—	Drainage provided	—
	Aged and Infirm Persons:—	
3	Removals—voluntary	2
—	—Court Order	1
	Smoke Observations:—	
21	Infringements—dealt with	13
	Noise Nuisances:—	
9	Dealt with	5
	Other Nuisances:—	
493	Dealt with	199
	Food Hygiene Regulations, 1955:—	
401	Miscellaneous requirements	145

FACTORIES ACTS, 1937 AND 1948

Inspections of Factories

Premises (*1*)	*Number on Register* (*3*)	*Inspections* (*4*)	*Number of Written Notices* (*5*)	*Occupiers Prosecuted* (*6*)
(i) Factories in which sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities	184	56	—	—
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority	1,100	323	17	—
(iii) Other premises in which Section 7 is enforced by the Local Authority (excluding outworkers' premises)	128	480	7	—
Total	1,412	859	24	—

Cases in which Defects were Found

Particulars	*No. of cases in which defects were:—*				*No. of cases in which prosecutions were instituted*
	Found	*Remedied*	*Referred to H.M. Inspector*	*Found by H.M. Inspector*	
(*1*)	(*3*)	(*4*)	(*5*)	(*6*)	(*7*)
Want of cleanliness (S.1) ..	4	3	—	—	—
Overcrowding (S.2)	—	—	—	—	—
Unreasonable temperature (S.3)	—	—	—	—	—
Inadequate ventilation (S.4) ..	4	4	—	1	—
Ineffective drainage of floors (S.6)	—	—	—	—	—
Sanitary Conveniences (S.7):—					
(a) Insufficient	6	9	—	1	—
(b) Unsuitable or defective ..	13	9	—	9	—
(c) Not separate for sexes ..	2	1	—	—	—
Other offences against the Acts (not including offences relating to Outwork)	1	1	—	—	—
Other works	7	7	—	—	—
Total	37	34	—	11	—

List of Outworkers Received during 1958

Description of Homework	*No. of Outworkers February*	*August*
Wearing apparel	9	9
Shoes	2	1
Artificial jewellery	—	—
Gloves	10	3
Others	—	—
Total	21	13

HOUSING

Clearance Areas

It has been brought home very forcibly during the year that the Department's part in the Council's Slum Clearance Programme is by no means at an end when the Clearance or Compulsory Purchase Order has been submitted to the Minister for approval.

The increase in the number of unfit properties, represented as Clearance Areas during 1956 and 1957, resulted in twenty-five Local Public Inquiries in 1958. In all 441 objections were heard, of which 256 necessitated the service of principal grounds upon objectors.

The responsible officer cannot undertake a public inquiry lightly and preparatory work is considerable, involving preparation of evidence and principal grounds as well as much consultation with the Town Clerk and other Corporation Departments, especially where the inquiry concerns a compulsory purchase order.

It is fair to comment that the time spent by inspectors preparing for and attending local inquiries and, afterwards, acting as guides to Minister's Inspectors visiting areas affected by orders, has seriously curtailed initial survey of new areas and subsequent representations.

There can be no doubt, however, that all time spent prior to public inquiries is worthwhile. A public health inspector, giving evidence from intimate knowledge and a conviction that his local authority's decision has been made properly and after full consideration, can very favourably impress even the strongest objectors. There is ample evidence to suggest that most objectors feel they receive a just hearing at inquiries and this assists in the relationship between the public and officers.

Mention must be made under this heading of the public inquiry into the Kingsdown Areas No. 1 and 2, which attracted national attention and much feeling locally. Evidence was submitted by the Planning Officer, City Architect and Housing Manager on questions of re-planning and re-development. Preparatory work for this inquiry was prodigious and included the provision of a model of the proposed layout of the area.

Survey

This year saw the start of a trend which may be expected to continue in future years, and which, at an appropriate time, will widen the work of the section.

The following table shows progress during 1955, 1956, 1957, and 1958 towards the total of 10,000 houses. Some 4,332 houses have so far been dealt with:

				1955 from 5th May	*1956*	*1957*	*1958*
Houses in Clearance Areas and already covered by operative Clearance Orders or Compulsory Purchase Orders.	Pre war	138	211	26	11	28	8
	Post war up to 5.5.55	73		—	65	3	4
Houses already in Clearance Areas and for which Clearance Orders or Compulsory Purchase Orders have been submitted to the Minister, but have not yet become operative.	Post war up to 5.5.55		56	—	18	6	7
Number of houses subject to operative Demolition Orders.	Pre war and post war up to 5.5.55		238	—	—	115	42
	Total demolished			26	94	152	61
Houses represented—Clearance Areas				537	1215	1191	371
Demolition Orders made				44	32	21	8
Certificates of Unfitness—Houses owned by Corporation				—	51	189	118
Undertakings given by owners to demolish . .				—	14	14	16
Unfit houses voluntarily demolished by Corporation and others				—	97	36	45
	Grand Totals			607	1503	1603	619

Clearance Area Procedure

Year	*Clearance Areas*		*Orders made*							*Orders confirmed*						
	Rep.	*Houses*	*C.O.*	*Pinks*	*C.P.O.*	*Pinks*	*Grey*	*Other*	*Sites*	*C.O.*	*Pinks*	*C.P.O.*	*Pinks*	*Grey*	*Others*	*Sites*
1955	48	537	15	118	13	250	135	11	50	14	57	6	30	12	–	5
1956	107	1215	17	75	26	378	63	11	75	16	107	20	314	93	10	44
1957	111	1191	78	832	6	226	84	34	79	13	73	14	267	28	5	41
1958	43	371	9	165	13	735	378	57	96	25	811	8	240	98	38	89

The above table illustrates the progress of the Council's Slum Clearance Scheme during the year. It will be seen that there has been a considerable increase in the number of houses in confirmed orders, whilst there is a reduction in the number of houses represented. This would appear to be a development to be expected in any clearance scheme spread over a number of years and comment on this aspect has been made under the heading "Clearance Areas".

It has been noticeable that in many areas surveyed the proportion of unfit properties best dealt with by demolition has dropped.

Consideration is now being given to the best way to secure repair of many properties and improvements in houses let in lodgings.

Prior Rehousing

Some difficulty has been experienced as a result of the unavoidable lapse of time between the declaration of clearance areas and confirmation of clearance or compulsory purchase orders.

The Local Authority prefer to re-house occupiers after confirmation of orders but unfit houses often deteriorate to an extent which makes temporary or minimum repair impractical. The Council are faced with the problem of ensuring that the property remains void if the tenants are re-housed.

It is inevitable, where there is no legal obligation upon owners, that such houses are sometimes re-let, and new tenants are often prepared to accept insanitary conditions in the knowledge that re-housing in Council-owned accommodation can be anticipated when orders are confirmed.

A policy to deal with this has been decided upon after consultation with the Housing Department and appears to be working satisfactorily. The Housing Committee are normally prepared to re-house upon a certificate from the Medical Officer of Health that such action is necessary on medical grounds, having regard to the condition of the house or that a danger element exists as a result of deterioration of the premises.

Every attempt is made to secure owners' agreement not to re-let the premises and these efforts meet with reasonable success.

Court Cases

During the year five cases came before the Courts as follows:

(*a*) Three cases were taken before the Court of Summary Jurisdiction for the use of houses in contravention of Closing Orders and a conviction was obtained in each case. One of the cases was referred back to Court as a continuing offence, when a fine of a shilling a day for forty-six days was imposed.

(*b*) An appeal to the County Court by an owner following the Council's refusal to determine a closing order, was eventually withdrawn. Some £350 had been spent on repairs up to that time but the cost of outstanding repairs was estimated at £500.

(*c*) One case under the *Rent Act, 1957*, was heard in the County Court, the public health inspector being called as a witness by the tenant. The Court deleted three items from the Certificate of Disrepair on the grounds that they were the responsibility of the tenant. One item referred to a missing party fence and the Court held the view that inclusion of this kind of defect of repair was unreasonable.

Closing Orders, Housing Act, 1957

The permissive power to make Closing Orders instead of Demolition Orders, given to the Local Authority by Section 17 of the Act, is, in the main, welcomed as a means of avoiding many difficulties experienced when demolishing one of a group of properties. Such an order gives the owner an opportunity of executing works to secure the termination of the order with the advantage of vacant possession. In many cases subsequent repair of the house is acceptable to the Local Authority.

One recent case, however, highlights possible difficulties when a Closing Order is made in an area where it is intended to deal with a group of unfit houses by comprehensive action in the future.

A Closing Order under Section 10 of the *Local Government (Miscellaneous Provisions) Act, 1953*, was made in 1953 on one of a group of properties known at that time as likely to be represented as a Clearance Area at some future date. The void property was sold in 1958 by which time it had been represented as part of a Clearance Area.

The new owner although aware of both the Closing Order and the representation proceeded to carry out work to make the premises suitable for occupation by a number of families. In due course the Local Authority refused, upon application, to determine the Closing Order and the owner lodged an appeal to the County Court. The appeal to the Court was later withdrawn and meanwhile the house was included as "pink" land in a Compulsory Purchase Order. At the public inquiry, unfitness was not challenged.

The case was further complicated in that the owner had permitted the occupation of the premises by two families. The illegal occupation was the subject of a successful Court action.

The position therefore arises where a property is the subject of a Closing Order, is "pink" land in a Compulsory Purchase Order, has work carried out to it and may be the subject of further court action for illegal occupation.

This position could not have arisen if a Demolition Order had been made.

Slum Clearance Training Course

At the request of the Association of Municipal Corporations a Slum Clearance Training Course was held in Bristol in May and was attended by over seventy Local Government officers, some from as far away as Wales, Cambridge and Cornwall.

The course lasted five days and lectures were given by all the principal officers of the Bristol Council whose work is in any way affected by housing. Subjects dealt with included Clearance and Compulsory Purchase Orders, including the law related thereto, finance, planning, re-development, multi-storey flat construction, special families, the problem of aged people and disinfestation. The matters discussed were illustrated by various visits.

The final session of the course was "open" when the Council's officers acted as a panel to answer questions.

The course was considered by all concerned to be an unqualified success.

Housing and Sanitation

1957		*1958*
	Houses Inspected:—	
—	Section 9	—
102	Section 16	72
1,275	Clearance Area	607
13,112	Visits for improvement grants, estimated life and other matters	9,719
	Represented to Committee:—	
—	Section 9	—
102	Section 16	72
1,191	Clearance Area	371
	Orders made:—	
21	Demolition Order—(Section 17, *Housing Act, 1957*)	8
45	Closing Orders—Whole house (Section 17, *Housing Act, 1957*)	45
1	Closing Orders—Whole house (Section 17, SS. 3, *Housing Act, 1957*)	2
26	Closing Order—Underground rooms and parts of buildings (Section 18, *Housing Act, 1957*)	15
1	Undertakings to repair accepted (Section 16, *Housing Act, 1957*)	2
10	Undertakings not to use (Section 16, *Housing Act, 1957*)	4
22	Undertakings to demolish (Section 3, 3a and Section 11, *Housing Subsidies Act, 1956*)	16
	Houses Repaired:—	
—	Section 9—informal	—
—	Section 9—formal	—
—	Section 9—formal by Corporation in default	—
1	Undertakings to repair	1
3	Undertakings not to use, cancelled after repair	4
1	Other repairs	—
13	Closing Orders determined after repair	16
1	Demolition Orders cancelled	2
120	Certificates of Disrepair	147
2	Revocation of Certificates of Disrepair	39
—	Refusal of Certificates of Disrepair	—

INSPECTION OF MEAT AND OTHER FOODS

Slaughtering Facilities

The slaughtering facilities in the City are at present adequate for the needs of the butchers and bacon curers. These facilities are as follows:

(*a*) The Public Abattoir, Gordon Road, where a contractor acting for the Local Authority is responsible for killing and dressing the animals presented there by the wholesale and retail butchers;

(*b*) Hotwells Slaughterhouse, which is occupied and administered by a group of butchers formed into a Company called the Mutual Meat Traders Limited;

(*c*) Pig slaughtering for the bacon trade is carried out in four private slaughterhouses.

Of the total number of animals slaughtered in the City, calves were the only class of animal showing a decreased kill (2,787 as against 4,387), and this may be due to the fact that more calves were required for beef and milk production. Cattle slaughtered at the Public Abattoir have increased by about 30 per cent (13,724 as against 10,607), and to a lesser degree at Hotwells, i.e., 6 per cent (7,484 as against 7,031). The overall increase in the City is about 20 per cent and not all of this was due to the reactors sent into the City for slaughter under the Tuberculosis (South-West England Eradication) Order, 1958. This Order covered Dorset, Somerset and Wiltshire, and Bristol's quota was 1,522 cows and 404 steers and heifers. Of this total (1,926 cattle), 561 cattle or 29 per cent were affected with generalised tuberculosis and 26 or 1·3 per cent were affected with other conditions warranting total rejection. This high rate of total rejection has increased the total weight of unfit meat to a figure which is not a true reflection of previous years. The incidence of tuberculosis in steers and heifers has shown an increase from last year (14·41 per cent this year as against 5·14 per cent last year), but the incidence in cows has decreased from 14·29 per cent (1957) to 9·91 per cent (1958). Further consideration of the figures quoted show, quite clearly, that this increased incidence is due to the Eradication Order and not to any general increase of tuberculosis in farm animals and is a position which should occur only once in any particular area.

Sheep slaughtered at the Abattoir decreased by 0·9 per cent (20,126 to 20,304 last year), but increased by 25·7 per cent (39,943 to 31,786 last year), at Hotwells, giving a total increase for the City of 15 per cent (60,069 to 52,090 last year).

Pigs slaughtered at the bacon factories are still declining which appears to be a common factor in this part of the country. It has been estimated that bacon factories are only killing to about 39 per cent of their throughput. This decrease of 19 per cent (14,393 this year to 17,916 last year) is offset by 25 per cent increase of pork pigs slaughtered at the Abattoir and Lairs (35,998 this year to 29,176 last year). This increase is made up with a 11·6 per cent increase at the Abattoir (14,732 this year to 13,198) and a 33 per cent increase at Hotwells (21,266 this year to 15,978 last year).

Mutual Meat Traders again sent considerable quantities of carcase meat to areas outside the City.

Slaughterhouses

Very few structural alterations were made at either the Public Abattoir or Hotwells. The construction of a detention room was started at the Public Abattoir to bring it into line with the recommendations of the Slaughterhouse (Hygiene) Regulations, and one other item of improvement was the provision of an offal storage room. This inedible material, as well as cattle horns and feet, was previously stored, as far as possible, in containers with close-fitting lids, and these placed in the yards between the buildings. In warm weather the contents expanded due to gas formation with the result that the covers lifted and the offal was forced over the top of the containers. The offal room is fitted with steel roller-shutter doors thus rendering it completely rat-proof and virtually fly-proof. At the same time the adjacent manure store was fitted with similar roller-shutter doors and a fly-proof screen was placed across the window area.

The Mutual Meat Traders Limited commenced a poultry section at Hotwells slaughterhouse towards the latter part of the year. This necessitated converting the old sales ring into a room capable of handling poultry in large numbers. A large refrigerator was installed together with the necessary office accommodation and washing facilities. Very little evisceration is carried on here since poultry in the main is purchased in an eviscerated state or the job is left to the butcher.

Prevention of Cruelty to Animals

A great deal of attention has been directed during the last twenty-five years to the prevention of cruelty to animals prior to and during slaughter. Controlling legislation, a public conscience, and the perseverance of such bodies as the R.S.P.C.A., and the Council of Justice to Animals and Humane Slaughter Association has resulted in the elimination of practices, which, for centuries, caused a great deal of unnecessary suffering to animals slaughtered for human consumption.

The inception of public health legislation in the mid-nineteenth century was designed, amongst other things, to protect human beings from animals so that the keeping of them would not prejudice the people's health. It has been noticeable, however, in recent years, that there is an increasing amount of legislation which imposes on man the need for care and consideration of the health, welfare, and prevention of unnecessary suffering of animals.

In Bristol, every endeavour is made by implementation of the powers at our disposal to ensure that there is no cruelty to animals dealt with at slaughter-houses. As part of their duties the City's meat inspection staff exercise constant vigilance over the transportation, off-loading, lairing and slaughter of animals in order to ensure that the protecting legislation is complied with.

Slaughtering of animals for human consumption is carried out at three types of centres in Bristol. These consist of a Corporation-owned public abattoir, a large privately owned slaughterhouse, and four bacon factories.

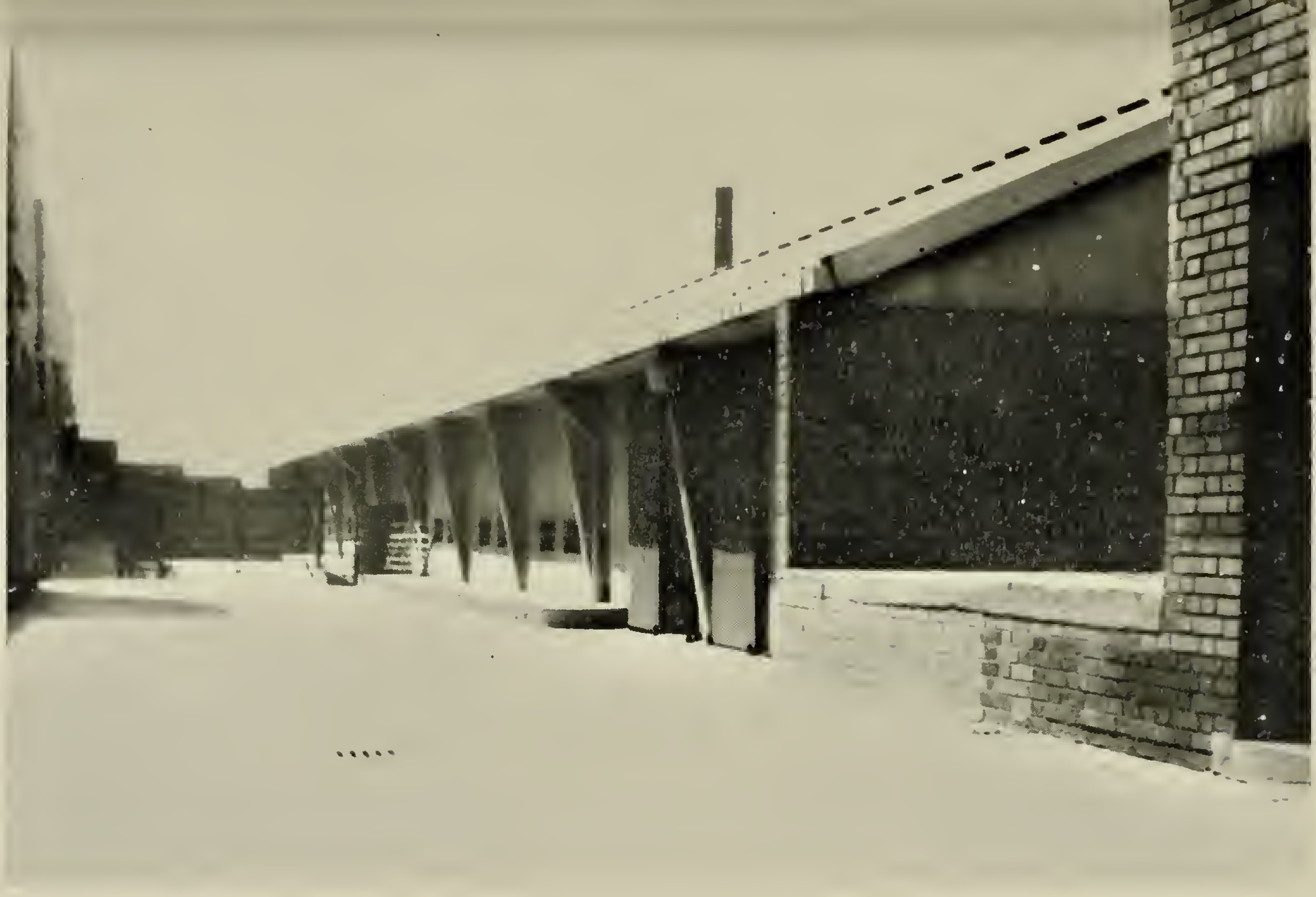
Much cruelty can be unintentionally caused to animals if the slaughtering is carried out by inexperienced slaughtermen. The issue by the Health Committee of licences for slaughtermen, as required by the Slaughter of Animals Acts, 1933–1954, receives careful consideration in order to ensure that applicants are physically capable of carrying out their work efficiently and are proficient in stunning and slaughtering methods. The licences which are renewable annually specify the types of instrument which may be used by the slaughtermen, and the class of animal which may be slaughtered by the holder of the licence.

As would be expected, a high standard of compliance with the requirements laid down in various Acts and Regulations has been achieved in regard to lairing, watering, feeding and humane slaughtering of animals at the Corporation-owned public abattoir. Improvements are carried out on a progressive basis. Recent additions to the abattoir costing approximately £25,000 have now resulted in premises designed to provide maximum comfort and humane treatment for animals awaiting slaughter.

All cattle are brought to the abattoir in lorries and the approach to a new primary cattle lairage includes a high level off-loading concrete platform with a wide, shallow-stepped descent to the main passageway leading to the pens. No slipping or other accidents have occurred amongst cattle since this form of offloading ramp was introduced.

The lairage, which is of modern design, well-lighted and ventilated, provides accommodation for up to 200 cattle. Cattle are held in open pens and are allowed to remain loose. The modern tendency to de-horn cattle has prevented much injury during pre-slaughtering periods. An attendant is constantly on duty during the daytime and where any animal becomes restive or obstreperous the beast is isolated to prevent disturbance of other animals. Any animals showing signs of distress are slaughtered with the minimum of delay.

Cattle are normally retained for periods up to twenty-four hours in this first lairage. During this time there is an automatic water supply to troughs from a low-pressure house tank system; fodder is available in head-high racks; bedding is changed daily and cleaning of the lairage and passageways is a continuous process. Tubular gates to pens have been fitted with metal sheets and so designed that trapping of heads or legs is impossible.



Public Abattoir, Bristol.

External view of lairage showing high level off loading platform on right of picture.

A Public Health Inspector examining meat at the Bristol Abattoir.

During the immediate pre-slaughter period, cattle are transferred to lairage near the slaughter hall. Animals are kept two or three to a pen, each pen being provided again with adequate water supply. The lairage is divorced from the slaughter hall by means of an intervening open passageway so that noise and the smell of blood associated with the slaughter hall does not reach the cattle awaiting slaughter. Cattle are eventually directed to stunning pens where humane slaughtering is carried out by captive bolt means.

The stunning of cattle in the large, privately-owned slaughterhouse, previously referred to, is carried out in the recognised way, but as yet no stunning pens have been provided.

Regulation 5 of the Slaughter of Animals (Prevention of Cruelty) Regulations, 1958, requires that a stunning pen or pens shall be provided wherever adult bovine animals are slaughtered. The appointed day for the operation of this Regulation has not, as yet, been stated. When it does come into force the private slaughterhouse will amend its cattle stunning facilities accordingly.

Sheep and pigs are, similarly, housed in suitable lairage. Modern primary lairage for 100 pigs has been provided in recent years, which is separated from the pre-slaughter lairage by a roadway. Troughs which can be used for water or for pig food are provided in the open type pens. It is considered that when troughs are used for feeding, the food contains sufficient liquid to satisfy the needs of the pigs.

Calves, which are inclined to be timid, easily distressed animals, have received due consideration in the layout of the abattoir. A separate calf lairage and slaughter hall is provided. Off-loading of calves from lorries receives special attention. Rough manhandling is not tolerated. Every effort is made to slaughter calves within two hours of arrival at the abattoir. Since calves are unused to drinking from troughs and their retention before slaughter is of such short duration, no food or watering is necessary. The number of calves allocated to a pen is restricted, and where any calf shows the slightest signs of distress, immediate slaughter is arranged. A small half-walled compartment is used for stunning purposes. This prevents the calves from being stunned within the sight of the general dressing hall.

All sheep, pigs and calves are stunned by electro-lethalator means and the correct application of the tongs is insisted upon.

When the Slaughter of Animals (Prevention of Cruelty) (No. 2) Regulations, 1954, came into operation, the Chief Public Health Inspector inspected the abattoir, the private slaughterhouse, and all the bacon factories to ensure that the Regulations were being complied with, and was satisfied that every requirement was being fulfilled.

No Jewish slaughter of cattle takes place in the City nor is there any direct export of live animals.

The Bristol Health Committee and its officers have always demonstrated a real concern for the welfare of the animals intended for human consumption and endeavour by every means at their disposal to ensure humane treatment and slaughter at all times. The Corporation has been in the van with any suggested improvements to alleviate unnecessary suffering of animals and in the example set by its own abattoir can justifiably claim to have responded to the call for humanity towards animals.

Meat Inspection

As in the past full time meat inspectors have been on duty at the Public Abattoir, and Hotwells Slaughterhouse, with adequate coverage of the bacon factories to maintain a 100 per cent meat inspection service. Trainee inspectors have again greatly assisted in the keeping of records and in the general duties of slaughterhouse routine. It is regretted that Sunday slaughter has been a fairly regular feature at both slaughterhouses. This practice, coupled with varying starting and finishing times, has again resulted in long and awkward hours being worked by the meat inspectors.

Professor K. E. Cooper, Professor of Bacteriology at Canynge Hall has, as always, been very co-operative in assisting us in determining obscure conditions, and our thanks are due to the Professor and his staff.

The procedure started last year of submitting specimens of pig muscle (diaphragm) from selected pigs, to Dr. H. D. Crofton, Zoology Department, University of Bristol, for examination for *Trichina* was continued during the year. A total of 623 specimens were submitted for digestion and microscopical examination with only one positive result. The results over the past two years (1,383 specimens with 5 positives) confirm the general opinion that the incidence of *Trichinella Spirallis* is very slight and does not, as yet, warrant the separate examination of each pig for this parasite.

The number of bovine animals found on post-mortem inspection to be affected with *Cysticercosis* again shows an increase, this year an increase of 0·22 per cent or 122 carcases, as against 62 last year. The number detected is almost double that of last year, but as the total kill has also increased, the overall percentage is not so high. All but one of the carcases were cold stored and then released for butchers' meat, the exception being a generalised condition found in a steer slaughtered at the Public Abattoir. Many sources of cysts were found and this carcase was condemned as unfit for human consumption.

During the year a system of Meat Marking was considered and approved by the Health Committee. The Public Health (Meat) Regulations, 1924, authorises the Minister to approve such a system if he is satisfied with the standards and methods adopted by a local authority. It is pleasing to report that the Minister has given his approval for the use of a stamp on meat slaughtered in Bristol and the scheme will operate from the 1st January, 1959, at both the Public Abattoir and Hotwells Slaughterhouse.

Bacon Factories

As previously mentioned, the throughput of pigs in all of the bacon factories continues to fall. In view of the fact that the number of pigs slaughtered in the City has increased it would appear that the pig keepers are more satisfied with the porker trade than keeping the pigs to bacon weight for slaughter at the bacon factories.

The management of one large bacon factory continues their modernisation programme and this year built a cold storage room and installed new refrigeration machinery. It is proposed that the existing engine room and boilerhouse will, in the very near future, be rebuilt and an oil-fired boiler is to be substituted for the existing coal-fired boiler.

Another large firm is, in addition to their slaughtering, bacon curing, and small goods trade, obtaining quantities of cow beef for boning and resale to firms outside the City who use this meat for canning and processing. This cow beef is very often of very poor quality and a careful watch is kept on the delivery of this meat. On two occasions the surrender of beef which was considered unfit for human consumption was accepted. Inquiry revealed that these carcases had been inspected at a slaughterhouse outside Bristol but not detained. This class of meat should be detained for twenty-four hours after slaughter because rapid deterioration can set in, and a clearing house for all home-killed meat imported into the City would be the answer to this particular problem.

Meat Depots

All the meat depots situated in the Old Market Street area have maintained their usual good standard of cleanliness and co-operation. As mentioned in last year's annual report, the cold room contemplated by one large wholesaler has now been installed. Another depot has been altered to provide a cold room and new office accommodation. The completion of these alterations now means that all depots have cold rooms on their premises and this obviates the necessity of keeping so many meat carcases on show in the depots.

English meat is still sold on commission at these depots and the introduction of Meat Marking in the new year will be of considerable assistance in noting the meat which should receive attention. Very little trouble has been experienced in the past year with either frozen, chilled or English meat. The dock strike in London did have some repercussions in this area when the boats containing chilled beef were unloaded and the meat dispatched to Bristol. Generally the engineers on board had done a very good job in maintaining suitable temperatures, but some trimming was at times found to be necessary.

Canteens

Visits to kitchens of the school meals service for checking the quality of meat supplied under contract was continued although trouble was experienced with some cured tongues and pickled beef supplied by one of the butchers. Generally speaking, the butchers have supplied very good meat to the school meals service.

Meat Transport

Early morning visits have continued to be made to the meat depots to check the condition of the vehicles bringing the meat to the depots as well as the vehicles of the wholesale and retail butchers and local carriers. At times it has been found necessary to remind the drivers of the provisions of the Food (Hygiene) Regulations, but the majority of them try to co-operate with requests from the inspector on duty. The adverse results of prosecutions taken under the Food Hygiene Regulations in Bristol last year have had to be considered when contemplating official action but, on the whole, the past year has been reasonably free from serious contraventions and no prosecutions have been instituted.

Knackers' Yards

One of the two licensed knackers' yards in the City is now under new management, and the owners are spending a considerable amount of money not only on the knackery business but also on that part of the premises that is classed as an offensive trade. The improvements made to date are very apparent, and the premises are now of a much more presentable appearance. Very few animals are slaughtered on these premises as it is much easier to transport a dead animal with the result that most of the animals dealt with are slaughtered on farms.

Piggeries

The inspection of piggeries in the City this year made very little progress owing to the redistribution of staff. Meetings have been held with the staff of the City Valuer's Department to try and regularise the construction of piggeries on Corporation property. The Medical Officer of Health, together with the Chief Public Health Inspector made a tour of selected piggeries with a view to fixing a definite standard of construction, water supply, and drainage, etc. Final details on all points have not yet been settled but advice continues to be given to all prospective tenants of the Local Authority's small holdings and allotments as to the standard required by the Health Department.

Cold Stores

Considerable alterations are still being made at one large cold store in the City. One new chamber has been constructed capable of holding over 700 tons of frozen food, new refrigerating machinery has been installed, together with new lavatory accommodation for the staff. When the work in progress has been completed, this cold store will be greatly improved and another cold store has extended the deep freeze chambers already in use. The new space is designed primarily for frozen pre-packed foods and quite low temperatures are required. These developments are a decided asset to the City.

Legislation

New legislation affecting slaughtering which came into operation during the year includes:

The Tuberculosis (South-West England Eradication) Order, 1958. This Order applies to the administrative counties of Dorset, Somerset and Wiltshire, and was responsible for a large number of cattle being sent into Bristol during the months of March to June inclusive, and of which so many were rejected as being unfit.

The Live Poultry (Movement Records) Order, 1958, requires poultry dealers and slaughterers to keep records of their purchases and killings.

The Fowl Pest (Infected Area Restrictions) Amendment Order, 1958, amends the 1956 Order which allows the Minister to exercise control over areas infected with fowl pest.

The Slaughterhouse (Meat Inspection Grant) Regulations, 1958, allows for Exchequer grants to authorities for meat inspection based on inspection units and population.

The Slaughterhouses Act, 1958—a complex piece of legislation and one which will require considerable thought in its application.

The Slaughter of Pigs (Anaesthesia) Regulations, 1958, are regulations issued to allow for pigs to be rendered insensible to pain by carbon dioxide gas.

The Slaughterhouses (Hygiene) Regulations, 1958, comes into operation on the 1st January, 1959, and will control the construction, ventilation and hygienic requirements of slaughterhouses which were classed as exempted premises under the Food (Hygiene) Regulations, 1955. Parts of the regulations do not come into force until an appointed day which will be made in conjunction with the Slaughterhouses Act, 1958.

The Slaughter of Animals (Prevention of Cruelty) Regulations, 1958, comes into operation on the 1st January, 1959, and re-enacts the 1954 No. 2 Regulations with certain amendments and additions.

Slaughter of Animals Act, 1958, consolidates existing legislation.

Inspection of Meat and Other Foods

1957		1958
	Visits:	
1,379	Slaughterhouses and bacon factories	1,478
56	Butchers' shops	47
2,872	Fish shops	2,568
186	Food preparing premises	88
1,174	Meat markets	1,281
—	Street traders	—
273	Schools/Institutions	275
238	Cold stores	252
125	Other premises	586
	Remedial action:	
—	Slaughterhouses cleansed	—
—	Slaughterhouses rebuilt, repaired or altered	—
—	Sanitary defects, etc.	—

Fish and Canned Foods Condemned

	Fish				*Other Foods*			
	Tons	*cwt.*	*qrs.*	*lb.*	*Tons*	*cwt.*	*qrs.*	*lb.*
1957	7	—	—	26	57	19	3	5
1958	5	10	0	23	55	7	2	11

Meat Inspection—Animals Examined

1957					*1958*			
Hotwells Lairs	*Abattoir*	*Bacon Factories and City*	*Total*		*Hotwells Lairs*	*Abattoir*	*Bacon Factories and City*	*Total*
7,031	10,607	—	17,638	Beasts	7,484	13,724	—	21,208
1,161	3,226	—	4,387	Calves	823	1,964	—	2,787
31,786	20,304	—	52,090	Sheep	39,943	20,126	—	60,069
15,978	13,198	17,916	47,092	Pigs	21,266	14,732	14,393	50,391
—	—	—	—	Goats	2	—	—	2
55,956	47,335	17,916	121,207		69,518	50,546	14,393	134,457

Total Weight of Meat Condemned

1957					*1958*			
Tons	*cwt.*	*qrs.*	*lb.*		*Tons*	*cwt.*	*qrs.*	*lb.*
53	12	0	10	Hotwells Lairs	106	5	2	27
88	14	2	11	Abattoir	220	18	2	13
15	0	3	26	Bacon Factories	12	10	3	18
7	9	0	12	Butchers shops and City	6	18	2	5
164	16	3	3		346	13	3	7

Inspection of Meat and Other Foods

1957 *Tons*		*1958* *Tons*
	Meat destroyed from:—	
76·19	Slaughterhouses and Shops	125·71
88·73	Abattoir	220·90
—	Cold Stores	—
65·00	Fish, poultry, vegetables, etc.	60·89

Carcases and Offal Inspected and Condemned in Whole or in Part

	Cattle excluding Cows	*Cows*	*Calves*	*Sheep and Lambs*	*Pigs*	*Horses*
Number killed (if known)	9,665	11,543	2,787	60,069	50,391	—
Number inspected	9,665	11,543	2,787	60,069	50,391	—
All diseases except tuberculosis and *Cysticercosis:—*						
Whole carcases condemned	21	64	5	111	318	—
Carcases of which some part or organ was condemned	4,063	5,008	16	6,753	5,313	—
Percentage of the number inspected affected with disease other than tuberculosis and *Cysticercosis*	42·03	43·38	0·57	11·24	10·54	—
Tuberculosis only:—						
Whole carcases condemned	125	477	16	—	27	—
Carcases of which some part or organ was condemned	1,393	1,144	14	—	970	—
Percentage of the number inspected affected with tuberculosis	14·41	9·81	0·501	—	1·92	—
Cysticercosis:—						
Carcases of which some part or organ was condemned	94	28	—	—	—	—
Carcases submitted to treatment by refrigeration	94	28	—	—	—	—
Generalised and totally condemned	1	—	—	—	—	—

Carcases Condemned

		Hotwells Lairs				Abattoir				Bacon Factories/City				Totals			
		T.B.		Other Conditions		T.B.		Other Conditions		T.B.		Other Conditions		T.B.		Other Conditions	
		1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958	1957	1958
Cows	Carcases	21	92	8	35	53	385	16	29	—	—	—	—	74	477	24	64
	Part Carcases	26	30	4	6	15	8	5	4	—	—	—	—	41	38	9	10
Other Bovines	Carcases	17	9	7	3	39	116	14	18	—	—	—	—	56	125	21	21
	Part Carcases	23	10	10	5	7	7	4	6	—	—	—	—	30	17	14	11
Calves	Carcases	1	3	6	3	—	13	14	—	—	—	—	—	1	16	20	3
	Part carcases	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—
Sheep	Carcases	—	—	57	60	—	—	20	51	—	—	—	—	—	—	77	111
	Part carcases	—	—	18	25	—	—	—	1	—	—	—	—	—	—	18	26
Pigs	Carcases	17	4	93	150	23	17	94	125	18	6	31	43	58	27	218	318
	Part carcases	1	1	36	34	8	9	12	35	7	—	25	21	16	10	73	90
Totals	Carcases	56	108	171	251	115	531	158	223	18	6	31	43	189	645	360	517
	Part carcases	50	41	68	70	30	24	22	46	7	—	25	21	87	65	115	137
Weight in lb.	Carcases	22425	45519	18160	27624	55498	187704	25960	37739	3014	919	4623	6800	80937	234142	48743	72163
	Part carcases	8930	4989	3042	2258	3807	2409	1873	3067	155	—	608	265	12892	7398	5523	5590

Schedule of Whole Carcases and Part Carcases Condemned indicating Disease or Condition

	Cows		Steers and Heifers		Calves		Sheep		Pigs	
	Car-case	*Part Car-case*	*Car-case*	*Part Car-case*	*Car-case*	*Part Car-case*	*Car-case*	*Part Car-case*	*Car-case*	*Part Car-case*
Abscess	–	1	–	3	–	–	4	15	20	27
Anaemia	–	–	–	–	–	–	2	–	–	–
Arthritis	–	1	–	–	–	–	–	–	7	1
Bruising	1	5	–	4	1	–	3	2	2	4
Cornyebacterium	–	–	–	–	–	–	–	–	3	21
Malformations	–	–	–	–	–	–	2	–	2	5
Emaciation	31	–	1	–	–	–	30	–	14	–
Enteritis	–	–	–	–	–	–	–	–	1	–
Fevered	–	–	–	–	–	–	–	–	25	–
Immature	–	–	–	–	1	–	3	–	–	–
Jaundice	–	–	–	–	2	–	–	–	–	–
Johne's	1	–	–	–	–	–	–	–	–	–
Malignant neoplasms ..	–	–	–	1	–	–	–	–	1	–
Mastitis/septic	1	–	–	–	–	–	1	–	–	–
Myo-degeneration	–	–	–	2	–	–	–	–	–	–
Oedema	7	–	3	–	–	–	32	–	22	–
Osteomyelitis	–	–	–	–	–	–	–	–	2	–
Pericarditis	–	–	–	–	–	–	1	–	1	–
Peritonitis	2	1	1	–	1	–	2	–	9	–
Pleurisy	–	–	–	1	–	–	9	8	58	15
Peritonitis and pleurisy acute	7	–	4	–	–	–	–	–	40	3
Pneumonia	1	–	–	–	–	–	–	–	18	2
Presternal calcification ..	–	1	–	–	–	–	–	–	–	–
Pyaemia	4	–	7	–	–	–	4	–	10	–
Pyelonephritis	–	–	–	–	–	–	–	–	1	–
Septicaemia	6	–	3	–	–	–	–	–	28	–
Swine erysipelas	–	–	–	–	–	–	–	–	9	–
Swine fever	–	–	–	–	–	–	–	–	26	–
Urticaria	–	–	–	–	–	–	–	–	4	12
Uraemia	3	–	1	–	–	–	–	–	1	–
Toxaemia	–	–	1	–	–	–	–	–	–	–
Melanosis	–	1	–	–	–	–	–	1	–	–
Metritis septic	–	–	–	–	–	–	–	–	1	–
Moribund	–	–	–	–	–	–	18	–	13	–
TOTAL	64	10	21	11	5	–	111	26	318	90
Tuberculosis	477	38	125	17	16	–	–	–	27	10
GRAND TOTAL ..	541	48	146	28	21	–	111	26	345	100

Cattle affected with *Cysticercus Bovis*:—

Cows	28
Steers and heifers	94
TOTAL	122

MILK AND FOOD INSPECTION

Legislation

Enactments which have a bearing upon the work of the Department and which became operative during the year were:

The Public Health (Preservatives in Food) (Amendment) Regulations, 1958.

These Regulations permit the importation and sale of citrus fruit containing not more than limited amounts of diphenyl or ortho-phenylphenol fungicides. The importation and sale of non-citrus fruit containing ortho-phenylphenol in limited quantities is also permitted.

Earlier Regulations allowed the sale of citrus fruit containing diphenyl by reason only of being wrapped outside the United Kingdom in impregnated wrappers.

The Labelling of Food (Amendment) Regulations, 1958

These regulations removed the condition that liquor, to qualify as a "cocktail," must contain a minimum of 40 per cent proof spirit.

The Anti-oxidant in Food Regulations, 1958

The addition of specified antioxidant preparations in limited quantities and to certain types of foods is permitted by these Regulations. None but the preparations named in the Regulations may be sold or advertised for use as antioxidants and those permitted must be sold in containers labelled in the prescribed manner.

Food certified by a Public Analyst as contravening the Regulations may be seized and condemned under the provisions of the *Food and Drugs Act*.

The Poisons List Order, 1958

The sale of Part 2 poisons under the *Pharmacy and Poisons Act* comes within the scope of a "local authority" and the new Order includes one item not in earlier lists of poisons, i.e., preparations containing above 5 per cent formic acid. De-scaling commodities on retail sale submitted for analysis have contained from 42 per cent to 80 per cent formic acid. They are dangerous substances but cautionary labels were not obligatory hitherto.

Retailers will now have to become "listed sellers" under the *Pharmacy and Poisons Act* and the containers must be suitably labelled. The Regulations did not permit any period of grace for the disposal of existing stocks and some are being found on sale which were not properly labelled. Active steps are being taken to secure compliance with the requirements in respect of these preparations. Some de-scaling preparations are made of phosphoric acid which remains outside the scope of the Act.

Agriculture Act, 1958

Section 7 of this Act amends the procedure for the service of notices and the recovery of costs in respect of the destruction of scheduled weeds. Unfortunately the Act does not extend the limited list of weeds to include those which are the subject of most complaints in urban areas.

Matters of Special Interest

Coffee

A complaint was made respecting the presence of small stones in purchases of coffee beans. Samples were procured in various parts of the City and small quantities of stones were confirmed in some of them.

The Public Analyst and Senior Food and Drugs Inspector called upon the managing director of local merchants concerned, from whom it was learned that in the country of origin coffee beans of a particular type are ripened in concrete troughs, and it was thought that these troughs are not always well maintained. Representations were made to the importers.

Honey

A bee-keeper purchased honey in a Bristol shop and he suspected that the title "Heather Honey" was not genuine. The Public Analyst is not able to distinguish between one honey and another. A letter was, therefore, addressed to the Advisor of the Bee Keeping Department at the North of Scotland College of Agriculture, together with a sample.

It appears that the analysis of honey so as to define its origin is a complex matter but there was evidence of mixture of different types of honey. Technically the complaint was justified and the matter was referred to the Medical Officer of Health of the area in which the packer's premises are situated in Scotland.

Dried and Liquid Egg

Twenty-one samples of whole, dried, and liquid egg, and of swabs from utensils used were secured from an egg packing station and from various bakeries in the City as follows:

Australian liquid frozen egg.
Home produced whole egg.
Chinese dried egg.
Reconstituted Chinese dried egg.
Reconstituted Australian dried egg.
Swabs of tins, mixing bowls, savoy bag, bucket, beater and jug.

Salmonella was isolated from one sample of Chinese dried egg but a repeat of the same material was satisfactory. All the other samples were negative for *Salmonellae* and for *Shigellae*.

Imported Apples

Samples of Italian and English apples were secured in January last and the Public Analyst reported the presence of traces of arsenic in two of five samples of English apples, and in fourteen of fifteen samples of Italian apples. In three Italian samples the arsenic content of the whole fruit slightly exceeded the amount then accepted as maximum, i.e., 1 p.p.m.

Subsequently, a letter was received from the Medical Officer of Health for Chippenham complaining of arsenic and lead in Italian apples despatched from Bristol, and press and radio implicated Lebanese apples but by that time none of the latter was available in the City. Further samples of the Italian brand of apples referred to were examined for arsenic and lead. In one sample contamination exceeded the accepted limit but a repeat was satisfactory. The degree of contamination varies very considerably from one apple to another.

The Association of Public Analysts has now recommended limits of 2 p.p.m. arsenic and 4 p.p.m. lead on *washed* apples. In very few cases have these figures been exceeded in Bristol samples of *unwashed* fruit. The condemnation of a consignment of apples owing to contamination in a few would, therefore, require serious consideration.

Potatoes—Arsenic

A letter from the Minister of Health to the Medical Officer of Health in March, 1958, drew attention to the use of arsenical preparations for the destruction of potato haulms prior to gathering and requested some sampling of potatoes from retailers for submission to the Analyst.

No arsenic was detected in:

British potatoes	12 samples
Canary Islands potatoes	3 samples
Belgian potatoes	1 sample
German potatoes	1 sample
Unspecified	10 samples
TOTAL	27

Creosote as Beverage

The dangerous practice of using beverage bottles for improper purposes was emphasised by an incident where a customer asked for cider and received creosote in a black bottle similar to a beer flagon, from which a friend drank a sip of the contents. Upon receipt of the complaint the facts were reported to the Town Clerk. Legal proceedings were successfully undertaken against the vendor.

Infection in Milk

A rare occurrence was the receipt of a telephone message from a dairy that milk had been received from a farm where anthrax was suspected. Immediate steps were taken to isolate the churns of milk. The appropriate police authority was notified and the milk was destroyed. The lorry and the boots of operators were disinfected, the churns sterilised, and personnel were told of the reasons for the steps being taken and warned to report any skin abrasions immediately.

"*Snocreme*" *Lollies*

These are confections resembling ice lollies to which a proportion of ice cream is added. There is considerable doubt about the question of their classification within the definition of "ice cream" and, therefore, about control of manufacture.

Submission of routine samples to the bacteriologist in the autumn revealed the presence of faecal coli in the product of one well-known manufacturing company. Their attention was drawn to the matter and investigations by the company suggested that gelatine, used as an ingredient, was at fault. Stocks in circulation gave the same results but samples from replacements were satisfactory.

Watercress

The Medical Officer of Health requested further investigation into alleged faecal contamination of watercress and samples have been secured from wholesalers on delivery and from retailers on sale. Faecal contamination was substantiated and the facts were reported to the Medical Officer of Health.

Following some work done on this matter in 1954, the situation is the same as it was then; there is no statutory control over the cultivation of watercress.

Legal Proceedings

Offence	*Result*
Creosote sold as cider	Fine £2 and 1 guinea cost.
Nail in meat pasty	Case dismissed.
Wire in sweet	Fine £5 and 2 guineas cost.
Snail in bottle of milk	Fine £10 and 2 guineas costs.
Channel Islands milk below standard	Case dismissed.
Metal in bun	Fine £5.
Mouldy sausage roll	Fine £5.
Smoking in food room	Case dismissed.

Prosecutions are pending respecting a cigarette in a loaf and rat excreta in tapioca.

For the second time legal proceedings failed in respect of substandard milk, solely by reason of the success of a defence plea that unlabelled churns could not be identified positively. The failure to label churns is itself a contravention of the Milk and Dairies Regulations but this is the responsibility of another authority.

Milk

Chemical Analysis

A total of 976 samples were submitted of which 388 were Channel Islands milk. Forty-five of the individual samples were deficient in fat. Twenty-five were satisfactory when bulked with other samples from the same consignments. In other cases, repeat samples complied with standards, but legal proceedings were taken in respect of a series of samples of Channel Islands milk coming from one farm which contained less than 4 per cent fat.

Twenty-one samples were deficient in non-fatty solids and 8 contained added water. Repeat samples of 6 of the latter were satisfactory. The facts were reported for legal proceedings in respect of 2, and the Town Clerk issued a warning to the producer.

Biological Examination

The 689 samples of raw milk submitted for tubercule and brucella examination included those taken regularly from retailers of T.T. (raw) milk in the City. Two samples from one producer were tuberculous and 10 samples from six farms were infected with brucellosis. Four samples taken in 1957 from two producers were reported in 1958 to be infected with brucellosis. All these samples were of milk intended for pasteurisation.

Designated Milk

Some 362 samples of pasteurised milk including 145 supplied for scholars, and 27 sterilised milks were procured for the application of the statutory tests. One failed the phosphatase test and none failed the methylene blue reduction test. The latter test was not applied in the case of 78 samples owing to atmospheric storage temperature being above 65 degrees F.

One hundred and ninety-one samples of tuberculin tested milk including that from the farm attached to a Hospital were submitted. Eighteen failed the methylene blue reduction test. Appropriate action was taken in all cases of failure to pass the statutory tests.

Ice Cream

All the ice cream samples complied with the chemical standard.

Gradings of those submitted for bacteriological examination were:

Grade	*1958*		*1957*	
1	116	188	181	283
2	37		50	
3	10		20	
4	7		11	
Unclassified	18		21	

Ice Lollies

No adverse reports were received from the Public Analyst in regard to ice lollies secured for chemical examination. Reference has already been made to the discovery of faecal coli in some samples of ice cream lollies and to the action taken.

Medicine and Drugs

Five hundred and seventy-six samples were submitted to the Public Analyst. Deficiencies or unsatisfactory labelling were revealed in the following articles:

> Varicose ointment; health and liver salts; travel sickness tablets; tincture of iodine; sal volatile; healing emulsion and fruit-preserving tablets.

Appropriate action by repeat sampling or destruction of stock was carried out. In one case the manufacturers disputed the Analyst's findings and the matter was settled between them.

Pharmacy and Poisons

Thirty-one samples were secured and 300 visits were paid to "listed sellers" of Part 2 poisons.

A proprietary insecticide was inadequately labelled, especially with regard to the requisite caution. It transpired that this commodity was no longer packed in that form and the sample was old stock. A nicotine dusting powder failed to disclose the name and address of the vendor. The matter was rectified. Glycerine of borax made by a local chemist was deficient in borax. His attention was drawn to the matter and subsequent samples were satisfactory.

Sampling at Corporation Establishments

Work under this heading was confined to sampling foodstuffs at the stores attached to school kitchens, which is referred to in a separate report on schools and school kitchens.

Fertilisers and Feeding Stuffs

Forty-five formal and 104 informal samples of fertilisers and of animal feeding stuffs were submitted to the Agricultural Analyst. In 19 samples the declared ingredients were found to be outside the permissive limits of variations. No statutory statements were supplied in respect of 6 samples and 3 were incorrectly described. Appropriate action was taken where necessary and none was reported for legal proceedings.

Notices

Sixty-eight notices served for various infringements, 64 under the Food Hygiene Regulations and 4 under the *Shops Act*, were complied with during the year. During the year 40 informal notices were served under the Food Hygiene Regulations and four under the *Shops Act, 1950*.

Food Poisoning

One hundred and sixty-four notifications of suspected food poisoning were dealt with by the Department. Sixty-three single cases and 21 outbreaks involving several people in each, in all 47 persons, were confirmed, totalling 110 confirmed cases. This figure exceeds that of 1957 by 20 cases.

Dysentery

Every month of the year saw a large increase in the number of cases notified, the peak being reached in April with 199 notifications. Five hundred and ninety cases were confirmed out of 888 notifications received during the year. The figure for 1957 was 48 and 88 respectively. During March, April and May the bulk of notifications came from Hartcliffe, Withywood and Knowle areas.

Typhoid and Paratyphoid Fever

A single suspected case of each disease came to the notice of the Department but neither was confirmed.

Dairies and Milkshops, etc.

1957	*Registrations*			*1958*
	Milk and Dairies Regulations, 1949			
68	Dairies			68
622	Distributors			612
	Milk (Special Designation) Regulations, 1949			
12	Pasteurised:	Dealers'	(Pasteurised) Licences	11
388		,,	Licences	396
18		,,	Supplementary Licences	18
2	Sterilised:	,,	(Sterilisers) Licences	1
512		,,	Licences	508
11		,,	Supplementary Licences	12
35	Tuberculin	,,	Licences	40
7	Tested:	,,	Supplementary Licences	7
	Food and Drugs Act, 1955			
12	Manufacture, storage and sale of ice cream			12
1,229	Storage and sale of ice cream			1,339
225	Preparation of sausages or potted, pressed, pickled or preserved food			233
136	Fish frying premises			139
—	Butter factories			—
—	Wholesale dealers in margarine			—

Dairies and Milkshops, etc.

Samples Taken 1957	*Samples not satisfactory* 1957	*Chemical Analysis*	*Samples Taken* 1958	*Samples not satisfactory* 1958
1,316	104	Milk	976	55
213	1	Ice Cream	180	—
2,793	30	Other foods	2,185	10
546	11	Medicines and drugs	576	15
31	5	Poisons	31	1
57	—	Rag flock	48	—
157	13	Fertilisers and feeding stuffs	149	12
161	7	Water (Baths)	124	9
61	—	Water (Other)	63	4
108	30	Miscellaneous	105	33
		Bacteriological examination:—		
915	35	Milk T.B. exam: City Somerset Gloucestershire Other Counties	689	11
249	10	Milk, pasteurised	217	1
52	—	Milk, sterilised	27	—
174	—	Milk, schools	145	—
225	50	Milk, T.T.	191	28
283	7	Ice Cream	188	6
78	2	Plant tests	66	1
462	91	Churn and bottle tests	505	70
77	25	Shellfish	60	12
127	29	Water	64	4
84	12	Miscellaneous samples	173	57

1957	*Visits (Not Sampling)*	*1958*
372	Pharmacy and poisons	300
166	Dairies	177
264	Ice Cream shops	271
267	Food preparing premises	417
984	Butchers shops	792
51	Infectious diseases (except food poisoning)	10
134	Dysentery	785
256	Food poisoning	208
16	Noxious weeds	71
8	Rag flock	6
773	Other Visits	596
	Notices	
151	Informal notices	44
177	Informal notices complied with	68
—	Statutory notices	—
—	Statutory notices complied with	—
	Remedial Action	
23	Premises altered and repaired	21
69	Premises cleaned and decorated	58
131	Other defects remedied (premises)	100
122	Hot water handwashing facilities provided	79
9	Heating provided	6
—	Drainage—Drains tested	—
2	Drains repaired	—
1	Choked drains repaired	1
2	Water closets—Flushing appliances provided	1
3	New pans provided	2
24	Other repairs	26
50	Lighting provided	29
133	Other nuisances abated	57

Other Registrations, Licences, etc.

1957		1958
	The Rag Flock and Other Filling Materials Act, 1951	
3	Licences to store rag flock	3
32	Premises registered to use filling material	31
	Pet Animals Act, 1951	
23	Licences to keep a pet shop	29
	Pharmacy and Poisons Act, 1933	
487	Listed sellers of Part II poisons	467
	Slaughter of Animals Act, 1933–1954	
63	Licensed slaughtermen	65
	Food and Drugs Act, 1955—Section 62	
4	Licensed slaughterhouses (Bacon Factories) ..	4
1	Licensed slaughterhouses	1
2	Licensed knackers' yards	2
	Public Health Act, 1936	
	Offensive trade—annual consent—	
6	Premises	6
10	Trades	11
	Offensive trades—seven-yearly consent—	
1	Premises	1
1	Trades	1

Statistics

Samples submitted to the Public Analyst 1st January to 31st December, 1958:

Sampled under the *Food and Drugs Act*:—	*1957*	*1958*
Dry goods, spirits and drugs	3,552	2,941
Milk	1,316	976
Total	4,868	3,917
Water, swimming baths	161	124
Water, others	61	63
Filling materials	57	48
Fertilisers and feeding stuffs	151	149
Poisons—Part II	31	31
Miscellaneous	108	105
Total	569	520
GRAND TOTAL ..	5,437	4,437

Samples submitted to the Bacteriological Laboratory 1st January to 31st December, 1958

	1957	*1958*
Milk:—		
Tubercle examination	915	689
Tuberculin tested	225	191
Pasteurised	249	217
Pasteurised (schools)	174	145
Sterilised	52	27
Ice Cream	283	188
Water	127	64
Plant tests	78	66
Churn and bottle rinses	462	505
Shellfish	77	60
Miscellaneous	84	173
Total	2,726	2,325

Adverse reports were received from the Bacteriological Laboratory in respect of the following samples:

	1957	*1958*
Milk:—		
Tuberculous*	36	16
T.T.	50	29
Processed	10	1
Ice Cream—Grades 3 and 4	31	17
Plant tests	2	1
Churn and bottle rinses	91	70
Shellfish	25	12
Water:—		
Baths	29	—
Others		4

* Includes *B. Abortus* (2 were T.B.)

Appropriate action was taken in all of the above cases.

Food Hygiene Regulations

In spite of the difficulties in precise interpretation of the Food Hygiene Regulations, the public health inspectors have continued to press for a reasonably high standard in this sphere. Although provision is not made in the Regulations for the service of Notices, it has always been the practice in this City to give food traders an opportunity of complying with the Regulations by drawing their attention to any contraventions that are observed. Prosecution is resorted to only in extreme cases, or where a breach of the Regulations continues after adequate warning. The measure of success of this approach is shown by the fact that only three prosecutions under the Food Hygiene Regulations were proceeded with during the year, two of which were for smoking in a food room; the other was for smoking and for wearing dirty clothing.

There would appear to be some misunderstanding regarding the question of smoking and it must be remembered that the actual words used in the Regulations are: "refrain from the use of tobacco." Whilst the usual way in which this regulation is contravened is by the act of smoking, it is obviously not necessarily restricted to lighted tobacco. The danger to the public health is not only from contamination of foodstuffs by tobacco ash, but also from the contamination of foodstuffs by the hands of a person which have been in contact with saliva, mucus, etc., as a result of handling tobacco or snuff. This contamination can take place even when the cigarette, cigar or pipe is not lighted, but is being held in the mouth. This point is made here because difficulty has been encountered in that there appears to be need to prove the physical act of smoking when dealing with a prosecution of this type.

The fact that as the result of visits to food premises by district public health inspectors in 1958, only 38 cases arose in which written notifications were sent to traders asking for contraventions to be rectified as against 145 in 1957, indicates that premises and equipment are now reaching a more satisfactory standard. It is noted that the majority of breaches of Regulations occur where the human element is involved. This is the field in which the continuing policy of health education is going to be of immense value, as the finest of premises and equipment will be of little avail in our effort towards food hygiene generally if the food trade workers themselves are not fully hygiene conscious.

City Water Supply

Particulars required by the Ministry of Health Circular

1. Whether the supply of the area and its several parts has been satisfactory in (a) quality (b) quantity	Yes.
2. When there is a piped supply, whether bacteriological examinations were made of the raw water and, where treatment is installed, of the water going into supply; if so, how many and the results obtained; the results of any chemical analysis.	Raw waters examined bacteriologically before treatment by Bristol W.W. Co. Raw water at Barrow before filtration—weekly. Raw water at Chelvey before chlorination—twice weekly—when pumping. Raw water at Litton before chlorination—weekly. After treatment found satisfactory.
3. Where the waters are liable to have plumbo-solvent action the facts as to contamination by lead, including precautions taken and number of results of analysis.	Water is not liable to lead contamination and this is confirmed by regular analysis of all City supplies.
4. Action in respect of any form of contamination.	On finding any trace of faecal contamination the matter is taken up with the appropriate authority immediately when further samples are taken until satisfactory results are obtained. Contamination after treatment has been negligible.
5. Particulars of the proportion of dwelling houses and the proportion of the population supplied from public water mains:— (a) direct to houses; (b) by means of a standpipe.	(a) The whole of the population in the Bristol area is supplied by the public water mains direct to houses with the exception of a few isolated premises in the rural suburbs where the supply is from private wells and subject to a form of chlorination. These are gradually being reduced as mains supply is laid on. (b) Negligible.

ATMOSPHERIC POLLUTION

In considering the work carried out by the Department in the field of air pollution the past year can be regarded with satisfaction. Not only was the Central Smoke Control Area finally submitted to the Minister of Housing and Local Government, but it was found that public interest in clean air was alive and growing. It would seem, therefore, that the efforts of the Department to publicise the effects and meaning of the Clean Air Act are showing results.

Smoke Control Area

The initial survey of the central area, started at the end of 1957, was completed, and the subsequent report was presented to the Health Committee in the following April. The Council duly resolved to proceed with the establishment of the proposed Smoke Control Area. The next stage, a detailed survey, was completed during the summer and, concurrent with this detailed survey, publicity of the scheme was carried out. This publicity is most important insomuch as it is necessary to ensure that all occupiers and owners of domestic, commercial and industrial premises are made aware of the effects of a Smoke Control Order. That persons affected by an Order have been inadequately informed of the purpose and requirements of the project is an objection which should be avoided, especially in the event of a public inquiry. Apart from the dissemination of material and information which is associated particularly with such a scheme, an opportunity is provided at the same time for general health education towards clean air. Agreement with a proposed Smoke Control Area is much more likely where occupiers have been encouraged to co-operate in a preventive health venture of this character.

In Bristol a great deal of importance is being attached to Smoke Control Area publicity and every effort is being made to secure voluntary agreement to the establishment of a Smoke Control Area on the part of occupiers.

Publicity must be carried out in such a way that everyone is afforded an opportunity of learning the effects of a Smoke Control Order at first hand. The initial survey allows "door-step" explanation to be given and this discussion is important since it is at this stage that occupiers within the area are introduced to the proposal. In order that anyone affected by the proposed scheme may have a chance of further discussion on the matter it is necessary that they should be made aware in the first instance that the Chief Public Health Inspector and his staff are available for consultation, and time must be set aside for such interviews.

Following the initial and final surveys every occupier received an explanatory document, together with a map of the proposed Smoke Control Area, and a register was kept which recorded delivery of the documents. In the meantime a programme of indoor and outdoor exhibitions was drawn up and pamphlets and posters relating to clean air and authorised fuels and appliances were obtained for use in displays. The Coal Utilisation Council, the National Society for Clean Air, the South-Western Gas Board, the South-Western Electricity Board, the Women's Advisory Council on Solid Fuels, and others, were approached and all readily agreed to co-operate with the Public Health Department in publicity work.

It is important that the Local Authority should not rely entirely on display material provided by outside bodies and to this end a large Public Health Department display unit was prepared for use in indoor displays. Outdoor and indoor exhibitions were designed to apply specifically to the proposed Smoke Control Area, and in each case not only were the health hazards associated with air pollution indicated, but the practical aspect, in the shape of special displays of authorised fuels and appliances, was demonstrated.

Articles relating to Smoke Control Areas have been included in three local newspapers and accounts of Local Authority Committee Meetings dealing with the subject have been well reported.

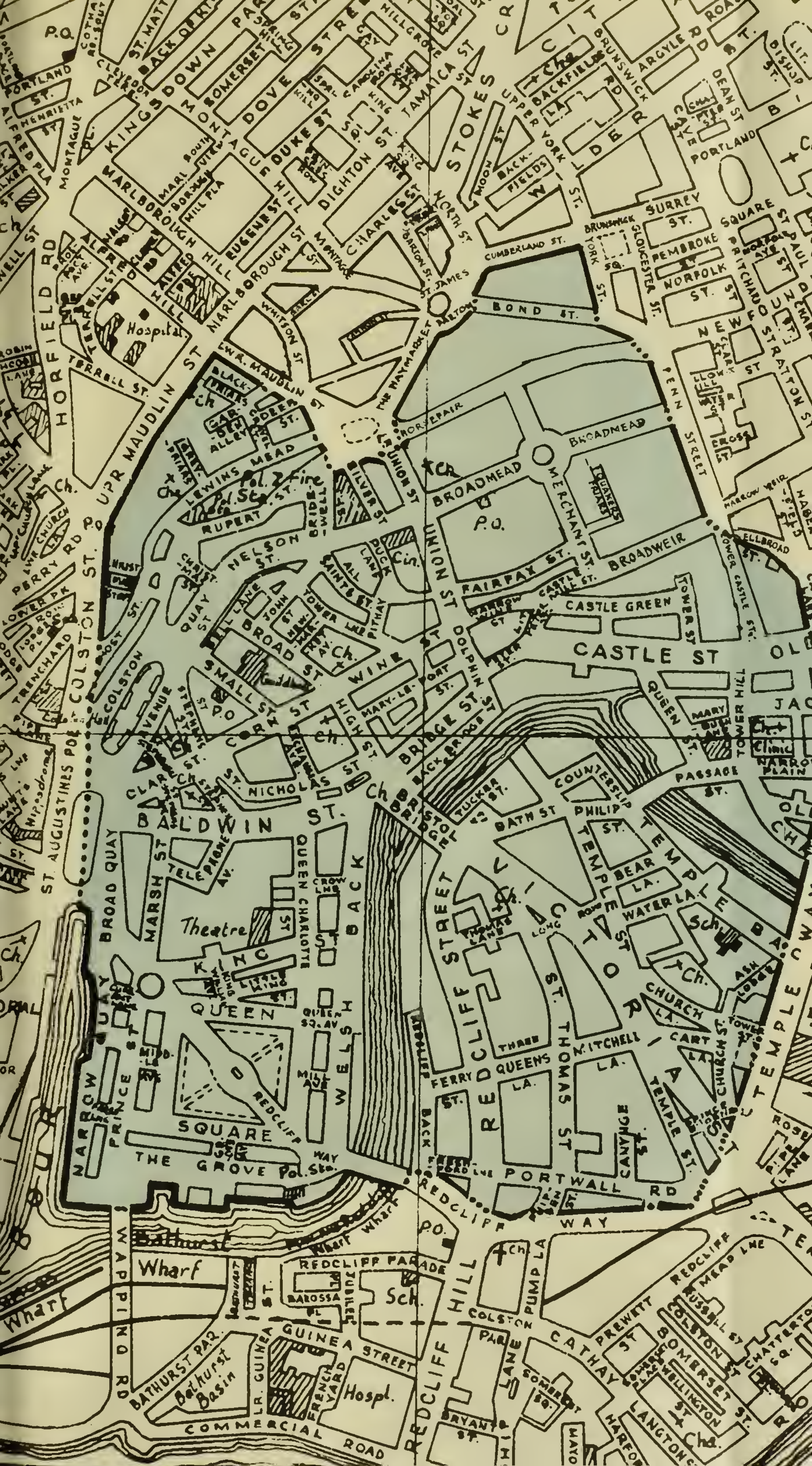
The Planning and Public Works Committee and the Docks Committee have co-operated by making outdoor sites available for the various exhibitions, and this has been very much appreciated by the Health Committee.

Smoke Control Area publicity should not be restricted to a few weeks, but should be spread over a period of months. In this way occupiers within the Area are constantly reminded of the proposal. Exhibitions and displays are, therefore, to be continued well into the New Year.

Towards the end of the year the Council accepted the recommendation of the Health Committee and declared the central 220 acres of the City to be a Smoke Control Area and submitted the Order to the Minister of Housing and Local Government for confirmation.

In making the Order the important question of exemptions had to be considered. After correspondence with other authorities and with the Ministry, the exemption clause was couched in general terms as regard fireplaces, namely: "Fireplaces equipped with mechanical stokers" subject to the condition that "the mechanical stoker shall be suitable for the plant it serves and shall be so installed, maintained, and operated as to minimise the emission of smoke and the fuel used shall be suitable to the design of the mechanical stoker." Certain buildings which were subject to conditions and circumstances likely to affect their length of life were also exempted. A point of doubt arose during the consideration of exemption, and guidance was sought from the Ministry of Housing and Local Government.

In "The Smoke Control Areas (Authorised Fuels) Regulations, 1956" one of the fuels that can be used in a Smoke Control Area without fear of contravention of the Order is "low volatile steam coal." Text books and other literature generally describe coals containing up to 20 per cent volatile matter as "low volatile coals." However, in a list of Welsh coals provided by the National Coal Board it was noted that "dry steam" coals covered the range of 9 to 13 per cent volatile matter, and the coals containing 14 to 20 per cent volatile matter were classed as "semi-bituminous." In the proposed Smoke Control Area certain underfeed stokers were using coals within the 14 to 20 per cent volatile matter class. Under one interpretation such plants in a proposed Smoke Control Area would have needed no further consideration since an "authorised fuel" was being used, but under the second classification, i.e., as a semi-bituminous coal, exemption from the provisions of the Smoke Control Area might have had to be considered. Notwithstanding their description, coals nearing 20 per cent. V.M. in content can easily produce smoke with mishandling. The reply received from the Ministry in response to a request for definition or clarification of the term "low volatile steam coal" leaves the position still open, for there seems to be no authoritative information on this matter. It seems reasonable to suppose that, in making the Regulations defining the "authorised fuels" some consideration of their smokelessness must have been given when this group of fuels were tabulated.



P.O.
KINGSDOWN PARADE
MONTAGUE
DOVE STREET
SOMERSET ST
DUKE ST
DIGHTON ST
JAMAICA ST
STOKES CROFT
CITY ROAD
BRUNSWICK
ARGYLE RD
WILDER ST
UPPER YORK ST
BACKFIELDS
MOON ST
PORTLAND ST
DEAN ST
SURREY ST
BRUNSWICK SQ.
GLOUCESTER ST.
PEMBROKE
NORFOLK
SQUARE
ST. PAUL
NEWFOUNDLAND
STRATTON ST
PRITCHARD ST
MARLBOROUGH HILL
MARLBOROUGH ST
ALFRED HILL
EUGENE ST
TERRELL ST
HORFIELD RD
Hospital
CHARLES ST
NORTH ST
ST. JAMES
CUMBERLAND ST.
BOND ST.
BARTON
THE HAYMARKET
WHITSON ST
UPR MAUDLIN ST
LWR. MAUDLIN ST
BLACKFRIARS
Ch.
HORSEFAIR
BROADMEAD
MERCHANT ST.
QUAKERS FRIARS
PENN STREET
UNION ST
SILVER ST
BRIDEWELL
LEWINS MEAD
Pol. Stn.
Fire
RUPERT ST.
NELSON ST.
CHRISTMAS ST.
ALL SAINTS ST.
DUCK LANE
Cin.
P.O.
FAIRFAX ST.
BROADWEIR
CASTLE GREEN
TOWER ST
LOWER CASTLE ST.
ELLBROAD ST.
QUAY ST
PERRY RD
COLSTON ST.
ST. AUGUSTINES PDE
TRENCHARD
Hippodrome
JOHN ST
TOWER LNE
PITHAY
BROAD ST
Ch.
SMALL ST
WINE ST
DOLPHIN ST
CASTLE ST
MARY-LE-PORT ST.
HIGH ST
CORN ST
BRIDGE ST
P.O.
COLSTON AVENUE
QUEEN ST.
TOWER HILL
Clinic
NARROW PLAIN
COUNTERSLIP
PASSAGE ST.
CLARE ST.
ST. NICHOLAS ST
Ch.
BACK BRIDGE ST
BRISTOL BRIDGE
TUCKER ST.
BATH ST
PHILIP ST.
BALDWIN ST.
TELEPHONE AV.
MARSH ST
QUEEN CHARLOTTE ST
BACK
BROAD QUAY
TEMPLE ST
BEAR LA.
WATER LA.
TEMPLE BACK
Sch.
Theatre
KING ST
LITTLE KING ST
VICTORIA ST
REDCLIFF STREET
THOMAS LANE
LONG ROW
Ch.
QUEEN SQUARE
WELSH BACK
CHURCH LA
MITCHELL LA.
CART LA.
TEMPLE
PRINCE ST
NARROW QUAY
THREE QUEENS LA.
ST. THOMAS ST
FERRY ST.
REDCLIFF WAY
CANYNGE ST.
TEMPLE ST.
CHURCH ST.
THE GROVE
Pol. Stn.
BACK
PORTWALL RD
REDCLIFF WAY
Bathurst Wharf
Wharf
P.O.
REDCLIFF PARADE
Ch.
PUMP LA
Sch.
WAPPING RD
BAROSSA PL.
COLSTON PAR
CATHAY
PREWETT ST
REDCLIFF MEAD LNE
SOMERSET ST.
GUINEA STREET
REDCLIFF HILL
BATHURST PAR.
Bathurst Basin
LR. GUINEA ST
FRENCH YARD
Hospl.
COMMERCIAL ROAD
BRYANT ST.
WELLINGTON ST
LANGTON
Ch.

The following tables and map set out the relevant information submitted to the Minister of Housing and Local Government regarding the Bristol No. 1 Smoke Control Area.

Table A

Additional Requirements of Smokeless Fuels

Bristol No. 1 Smoke Control Area

No. of industrial premises	109
No. of commercial premises	1,053
No. of dwellings	315
No. of other premises	33

	Domestic	*Industrial*
1. Present annual tonnage of bituminous coal and other smoky fuels (excl. oil)	390	1,621
2. Annual tonnage not to be replaced (*e.g.* because of exemptions under Smoke Control Order)	37	958
3. Balance requiring to be replaced	353	663

	Domestic	*Commercial*	*Industrial*
4. Additional fuels required annually to replace 3 above:—			
1. Electricity	—	140,000 kwh.	—
2. Gas	3,000 therms	12,300 therms	—
3. Oil, etc.	—	—	—
4. Solid smokeless fuel for open fires (incl. coke, coalite, etc.)	225	42	—
5. Solid smokeless fuels for stoves and boilers (incl. coke, anthracite, low volatile steam coals, Phurnacite)	40	24	403

Fuels shown by tonnage, except gas—therms, electricity—kilowatt hours.

Table B

Clean Air Act, 1956

Bristol No. 1 Smoke Control Area

Schedule of Estimated Costs of Adapting and Replacing Fireplaces

1. Number of dwellings where replacement or adaptation of fireplaces is required—214.

2. Number of existing appliances requiring replacement or adaptation (appliances in regular use only).

1. Open fires	198
2. Open fires with boilers	—
3. Combination grates and solid fuel cookers (without boilers)	30
4. Combination grates and solid fuel cookers (with boilers)	—
5. Washboilers	—
6. Freestanding stove	91

3. Number and costs of new appliances required.

	Open fires	*Combination Grates and Cookers (without boilers)*	*Free-standing stoves*	*Total*
No. of appliances	149	30	1	180
Total cost of appliances (£) (based on maximum cost)	745	1200	18	1963
Range of cost for appliance (£)	3–5	35–40	14–18	—
Total cost of other works attributable to installation of new appliances (£) (including cost of gas points).	926	573	6	1505

4. Cost of other work not attributable to installation of new appliances:

No. of appliances	*Total Cost*
49 (for gas ignition)	£98

5. Estimated Exchequer contribution:—
   1. Total estimated cost of works above—£3,566
   2. Total estimated claim for Exchequer contribution—£1,426

6. Cost of work attributable to installation of open fire to replace existing fireplace of different character (these figures are included in item 3).

No. of appliances	17
Total cost of appliances (£) . .	85
Total cost of other works attributable to installation (£) . .	378

Chimneys

During the year 21 plans, submitted in accordance with building byelaw requirements, showed that new chimneys were to be constructed. Of these 21 proposed chimneys 12 were considered to be of suitable height, without necessity for comment, 3 were considered to be of satisfactory height only so long as certain fuels were used, and in the case of the remaining 6, increases in the indicated chimney heights were asked for and agreed upon.

Although there is no control over the heights of chimneys existing before the passing of the Act, voluntary contact was made with the Public Health Department by two firms who wished to reduce the heights of their chimneys. The structures were out of plumb in the upper parts and the owners decided to remove these defective lengths but they wished to satisfy the Public Health Department before doing the work so that no nuisances would occur because of the reduced heights. In each case there was sufficient height remaining after reduction to give adequate clearance of adjoining buildings by flue gases. These cases of co-operation on the part of local industry indicate the happy relationship which exists between the Public Health Department and industrial concerns.

In discussions with persons concerned with chimney heights it was noted that many of them attached no importance to the constituents of flue-gases other than smoke.

Notification and Prior Approval of Furnaces

The installation of 28 new furnaces was notified to the Public Health Department during 1958. Of these 23 were oil fired, 1 was coke-fired, 3 gas fired, and the remaining 1 fired by anthracite. In addition 4 coal-fired boiler furnaces were refitted to burn oil and another changed from town's gas to gas-oil firing. In 2 cases of coal-fired boilers, 1 changed from hand-firing to mechanical stoking (chain grate stoker) and in the other a sprinkler stoker was replaced by a chain grate stoker.

The approval in accordance with Section 3 (2) *Clean Air Act, 1956*, was only specifically requested in the case of one new installation. This approval, after correspondence and discussion had cleared some doubts, was given by the Health Committee. In the case of the other new installations, although formal approval was not requested, the officer concerned with these matters acquainted himself with the nature and layout of the plans and was satisfied that Section 3 could be complied with.

Survey of Boiler and Furnace Plants

A survey of the existing boiler and furnace plant in the City which was initiated by the senior district inspector concerned with atmospheric pollution was continued and some 200 plants have now been visited. These visits afford an opportunity for discussions with managers and engineers on the requirements of the *Clean Air Act, 1956*, and in this respect it is necessary that public health inspectors should have specialised knowledge and training in such matters as air pollution and combustion in order to allow the Public Health Department to approach engineers on the same level. Furthermore this knowledge promotes appreciation of true difficulties and the ability to see through insupportable excuses when undue smoke emissions are being investigated.

Smoke Emissions

Few complaints of smoke emissions were received this year, and in all cases, on investigation, it was found that there was a ready solution. The reduction in the number of smoke complaints might have been the result of increased chimney observations by the Inspectorate. Follow-up visits as a result of these observations prevented further emissions and subsequent complaint by the public.

In this respect some of the firms in Bristol are surprised at the speed with which the undue emission of smoke is in some cases noted and investigated, especially those emissions occurring early in the morning. The speed with which these emissions are investigated is simply explained—the senior district inspector concerned with air pollution lives on an elevated part of Bristol and has a panoramic view of the south side of the City. The viewing of the chimneys becomes a natural accompaniment to having breakfast, and even the remainder of his family became interested in this spotting. However, the "game" has lost its interest since there now seems to be but few smoke emissions to attract attention!

Since the last Annual Report, the Dark Smoke (Permitted Periods) Regulations, 1958, were made, and became operative on the 1st June, 1958. The investigation of emissions on the basis of the basic permitted limit—ten minutes dark smoke in eight hours, could be tedious and, in certain weathers, arduous, and observations would seem to rest upon Regulation 4, namely "the continuous emission of dark smoke caused otherwise than by soot-blowing, for a period exceeding four minutes; or the emission of black smoke for more than two minutes in the aggregate in any period of thirty minutes" shall be an offence.

The relating of the density of smoke to the Ringelmann chart has been taken care of in the Department by the Health Committee sanctioning the purchase of two optical viewers. Although the human factor of judgment still enters into the equating of smoke density with the chart it is far easier to do so using an optical smoke viewer than a paper chart.

Large New Boilerhouse

In September, 1958, a large new boilerhouse owned by a public body began operating. Broadly speaking it was the inauguration of a district heating scheme insomuch as the heat and steam is to be distributed to several groups of buildings on a progressive scale. Bearing in mind that because of various reasons, overloading and obsolete equipment amongst them, smoke emissions occurred from the plant to be replaced by the new boilerhouse, it was hoped that there would be an overall improvement in the smoke emissions in the area. Unfortunately, this hope was not fulfilled, as owing to teething troubles, lengthy black smoke emissions occurred from the oil-fired boilers. Complaints and a petition, not only in respect of the smoke emissions but about excessive noise, resulted. Because the problem had many important and difficult aspects, a meeting of all the persons concerned was arranged. This meeting served a useful purpose and resulted in the fullest co-operation from the controlling body of the boilerhouse. Modifications to the operative arrangements in the boilerhouse reduced the smoke emissions to a minimum; baffling of circulating pumps to avoid emanations of noise was carried out and reduced considerably the level of noise emission. Further complaints were made, however, one alleging that SO_2 fumes were sweeping down on adjoining houses during certain climatic conditions. For this reason three sulphur dioxide gauges and a daily smoke and sulphur dioxide filter were sited around the chimney.

At the close of the year the circumstances connected with the running of the boilerhouse were still under review. The public body operating the boilerhouse are aware of their responsibilities and are prepared to co-operate to the full.

Gasworks

With the extension of the list of works scheduled under the *Alkali, etc., Works Regulation Act, 1906*, the control of gasworks passed to the Alkali Inspectorate on June 1st, 1958. At the opening of the year there were three gasworks operating in the City. Two of these were obsolescent and still equipped with horizontal retorts. They both ceased to operate as coal-gas producers during the year although one still makes carburretted water gas. The remaining works are very large and modern, but, nevertheless, have been the subject during the last few years of complaints from householders of surrounding properties about foul gassy odours. The complaints, which continued during the year, were directed not only to the Local Authority but to the local M.P., who, as a result, visited the gasworks with the Chief Public Health Inspector, representatives of the complainants, and a Gas Board representation led by the Deputy Chairman of the South-Western Gas Board. Correspondence was also directed to Lord Mills, Minister of Power. Since the Alkali Inspectorate has taken over supervision of gasworks the Local Authority now have no control over the works or its processes, but in order to maintain continuity of action the complainants and the District Alkali Inspector have asked for continuing liaison with the Public Health Department.

With regard to the transferrence of duties connected with certain industrial processes, it will no doubt be some years before the public are fully aware of the change in the law. Consequently complainants will still contact the Local Authority for action to be taken in respect of these processes; the Alkali Inspector, with a vast area to cover, is a relatively inaccessible person and the Public Health Department will, to some extent, have to act as receiving centre for complaints being made to the Alkali Inspectorate.

Cupolas

Complaints were received regarding one cupola, where stack emissions were sweeping down into adjoining works. This was caused by relatively low level discharge and higher surrounding buildings. Approaches by the Public Health Department resulted in the ordering of a new and taller cupola to replace the existing one. Another cupola, upon which discussions between the firm and the Department during the previous year had been necessary, was satisfactorily modified. The cupola is sited close to the adjoining street pavement and fairly close to houses and complaints of grit and fume emission were substantiated on investigation. The modifications carried out included the provision of grit arrestors and water spray, which should certainly improve matters.

Caramel Manufacture

At varying times during the year complaints were received about the smells, including that of ammonia, being emitted by a firm of caramel manufacturers. Caramel is used in many food businesses, one being the brewing industry, and is made by the heating of sugar, ammonia being used to facilitate the caramelisation process. At times escapes of ammonia occurred during delivery of the solution, but this was rare and did not last long. The main sources of emissions, not only of apparent ammonia fumes, but the rather sickly smell of "burnt sugar," were the vats in which the sugar is treated. At the close of the year the firm, after discussions with the Public Health Department, were checking on the possibility of ducting the steam and attendant smell from the vats to the boiler stack. Previously, ducting only exhausted at roof level.

Grill Bar

At times the smell of food cooking can be enchanting, especially if material realisation comes afterwards, but to be subject to it continually without the opportunity of sampling can be nauseating.

The grilling of steaks at a City restaurant became a nuisance to the occupants of an adjoining office. The restaurant and office are situated in a narrow courtyard and the hot fatty fume was exhausted as a blue haze from the face of the front wall at parapet level. Owing to the congested nature of the courtyard the smell was, on most occasions, swept downwards and entered the open windows of the office. The restaurant lessees agreed to do works to avoid causing nuisance, but because the restaurant building was of architectural and historical interest—it was an old coaching house—difficulties arose in the placing of the extended ducting required. However, this matter was resolved and appears to have solved the problem. Complaints of this kind should not arise from new buildings, since all plans for new works are passed to the Public Health Department for comment, and the siting of exhaust outlets can be considered carefully at that early stage.

Railways

It was pleasing to note that the Railway Executive has substantiated the promises of modernisation. Plans were submitted during the year for a diesel-electric engine maintenance depot to be built at St. Philip's Marsh. How much better will the living conditions of people who live near the railway and cleaning sheds be when the switch-over is complete!

Films

The Gas Council have placed orders for a film to be made of particular reference to Smoke Control Areas. The technicians making the film visited Bristol, and the Public Health Department was very pleased to be asked to help in this project.

GENERAL ENVIRONMENTAL HEALTH WORK

The Royal Agricultural Show, 1958

The site of the Show was the old Whitchurch Airport, which provided 157 acres of reasonably flat ground with the advantage of existing runways and hard-standings. Furthermore, land drainage which was installed during the construction of the airfield in pre-war days, was still functioning. The nature of the soil is clayey and impervious so that the drainage of the site relied, mainly, upon the efficiency of the land drainage system.

The size of the Show and the amount of labour and organisation involved in its establishment can be gauged from the fact that erection of semi-permanent structures started in September, 1957, when the Society's Clerk of Works became resident on the site. In February, a meeting in Bristol was arranged between the surveyor and the assistant surveyor of the Society, the Medical Officer of Health, Chief Public Health Inspector and a senior district inspector. A discussion ensued upon the sanitary and catering facilities to be provided at the Show.

Catering Arrangements

Following the aforementioned meeting, the official caterers were contacted and asked for details of their arrangements. Representatives of these firms visited the office of the Chief Public Health Inspector and discussions took place with the senior district inspector. This arrangement was helpful to the Public Health Department and appreciated by the caterers since they had prior warning of local requirements.

These main contractors catered for the public cafes, bars, members' and judges' cafes and the like. The facilities and arrangements were good, and, in the main, conformed to the Food Hygiene Regulations.

In addition to these main caterers the 590 exhibition stands provided some form of refreshment for their customers. The extent of this service varied from coffee and biscuits to large-scale catering, and to make this supervision difficult, these stand caterers did not arrive until the Monday—the day before the Show opened. The standards presented by them varied from excellent to poor, and it was against their kitchens that most of our criticism was levelled. In many kitchens, working surfaces were bad, food storage inadequate and washing-up facilities primitive. It would seem that some of these itinerant caterers are so short a time in one place that no proper control has crystallised. Furthermore, a set of circumstances occurred that had an important bearing on the food hygiene of the Show catering. For some time before and up to the time of the Show, there occurred an outbreak of mild dysentery, centred mainly on the Knowle West area, in which it was more than likely temporary catering staff would be found to reside. After some initial difficulty, a list of local persons to be employed at food premises on the Show ground was obtained. This list was checked against a list of recent dysentery and salmonella cases. Nine contacts or ex-patients were found amongst those to be employed. Faeces samples were obtained and the bacteriological examination results were all negative. The difficulty in connection with this investigation was the short time available to check upon matters. Another factor to be taken into consideration was the employment of untrained personnel in the food premises. Under these conditions where untrained personnel are employed—it is necessary that the other conditions, namely facilities for maintaining hygienic conditions, are good. It was impressed on managements that particular care was necessary to ensure that the amenities provided were fully used.

Sanitary Accommodation

The sanitary accommodation provided by the Society, apart from that attached to exhibitors' stands, consisted of:

12 female sanitary blocks, each with 16 w.c's discharging into sumps;

5 male sanitary blocks, each with 10 w.c' sand approximately 35 ft. of urinal troughing, discharging into sumps;

7 gent's yards, each consisting of a deep trench latrine (8 compartments), and urinals discharging into the trench.

Some of the sumps serving the w.c. blocks were connected to the existing land drainage, with the intention that liquid effluent would overflow into the drainage pipes. Unfortunately, because of the nature of the sub-soil, there were many sumps that were mere collecting tanks and constant emptying by cesspool emptiers was necessary.

Frequent inspections were made of the sanitary accommodation which was of adequate capacity, but certain defects and omissions were asked to be rectified. The cleanliness of the sanitary conveniences was maintained satisfactorily by the staff of the Transport and Cleansing Department.

In connection with the men's conveniences, it was felt that the design of the latrine structure could be improved, and constructive comments were made to the Society's surveyor on this matter.

Drainage

The existing land-drainage system was used to take soil drainage effluent. One outfall was temporarily connected to a foul sewer available and, at the other outfall which discharged into a stream, a chlorination point was established. There were no complaints about the drainage facilities, except where two breakages occurred due to heavy vehicular traffic. These breaks were soon repaired.

Animals

The manure from the animal lines was taken daily to one collecting point, from whence it was removed by contractor at the end of the Show period. There was no trouble from this arrangement and flies were few.

Refuse Collection

Where necessary, dustbins were provided by the Transport and Cleansing Department throughout the Showground. Daily collections were made and this service was very satisfactory. Some of the stand holders were careless with their storage of refuse, and it was necessary to caution some of the exhibitors about the improper disposal of kitchen refuse.

Water Supply

Water was provided by a complete mains supply system installed throughout the ground by the Bristol Waterworks Company, and gave an adequate and satisfactory service.

Hairdressers

Two men's hairdressers were established in two of the men's toilet blocks. These were inspected by a public health inspector and the provision of some means of cleansing combs, etc., was asked for, and provided.

Caravans

Within the showground the Royal Agricultural Society had set aside a site for the proper layout of caravans, which were used by persons connected with exhibitors' stands, etc. Proper amenities were provided and there was no complaint about the site.

General

That the Royal Show should need so much attention may be surprising, but it must be remembered that over 100,000 people visit the Show in four days. In addition, about 12,000 people work on the ground during the Show. To provide for the needs of visitors, exhibitors and livestock, during the Show, services similar to those required for a town of 5,000 must be installed.

However, opinions were expressed that, as the Show only lasted four days, the public health inspectors were too strict. This comment was mainly in connection with requirements in food preparing premises. It is unfortunate that this attitude should prevail amongst persons who, if proper precautions are not taken, can do so much harm. Whatever was requested by the public health inspector was required by law or common sense. Food infections do not differentiate between temporary and permanent establishments. Fortunately, no food poisoning cases occurred; if any outbreak had occurred, the work involved for the Public Health Department would have been extensive, for the visitors to the Royal Show came from all parts of the South-West.

The care and attention taken by the public health inspectors prior to, and during the Show, had its reward, as there were no complaints from the public or exhibitors about the amenities supervised by the Public Health Department.

It is pleasing to report that discussions between the officers of the Public Health Department and the Royal Agricultural Society were always conducted on extremely amicable terms.

The surveyor of the Society and his assistant were always co-operative and, although probably the two busiest men on the ground, were courteous and attentive to the public health inspectors in their requests.

Goram Fair

This Fair, arranged by the Entertainments Manager, as part of the Bristol Corporation Summer Entertainment Programme, has now become an annual event, attracting a large number of people. The experience gained from previous years has enabled the Public Health Department to assess more readily the general health control measures, sanitary accommodation and food hygiene standards for a fair of this size. Since the majority of showmen and food caterers have participated in the Fair for a number of years the requirements of the Pleasure Fair Byelaws and Food Hygiene Regulations are known to them. This has meant that in most instances the Byelaws and Regulations were complied with without the necessity of any reminder by the Public Health Department.

Sanitary accommodation for men was provided in the form of urinals drained to large tanks, sunk in the ground, together with a range of Elsan closets. These were all housed in a compound, which allowed control over privacy, cleanliness, disinfection and disinfestation.

The converted double-decker bus, fitted out by the Transport and Cleansing Department, was again used for female sanitary accommodation and proved entirely satisfactory. The range of water closets on each deck of the bus, together with the provision of wash-hand basins has enabled the achievement of a commendable standard.

The temporary sanitary accommodation is augmented by permanent accommodation for both sexes at several points on the Blaise Castle Estate.

The standard of food hygiene, both on stalls and in the larger licensed and food catering marquees was good, and occupiers were very co-opreative. An Army field kitchen demonstrated cooking on the site and gave meals to members of the general public. Here, too, a high standard of hygiene was evident. The Fair, which is open for fourteen days, attracted 147,000 people, and whilst it is temporary in character, a great deal of health hazard could arise, if adequate public health control was not exercised. It is pleasing to report that no complaints were received this year with regard to public health arrangements at the Fair.

Bristol Mid-Summer Carnival

Another annual Fair, the Bristol Mid-summer Carnival, was held at the Memorial Ground, and here again the organising committee are well aware of the requirements of the Health Department, and co-operate fully in achieving a high standard of hygiene throughout. Fortunately, main drainage, mains water supply, gas and electricity, are available on the site and full use is made of these facilities. Ranges of water closets are provided for both males and females and waste water is drained to sewer inlets on the site. Gas and electrical water heating appliances, wash-hand basins and sinks, are also available on each food stall. This standard cannot be achieved in every fair, but where facilities do exist, every opportunity is taken to encourage and persuade fair committee and occupiers to take full advantage of the circumstances. The fair, which is open for ten days during July/August, is very well patronised, and as in the case of other fairs held in the City, no complaints were made by the visiting public regarding public health matters.

Small Fun Fairs

A number of small fairs, arranged by members of the Showmen's Guild, are held in different parts of the City during the summer months, and in each case, the necessary public health control measures are enforced.

Noise Nuisances

Of all the environmental health matters which have to be dealt with by public health inspectors perhaps one of the most difficult is noise. Noise is not one of the listed statutory nuisances in the *Public Health Act*, *1936*, but its effect on health can often be more drastic than any of those for which provision is made. Its effects can lead to nervous irritability, loss of sleep and efficiency, lassitude, and, consequently, due to one or a combination of these factors may culminate in carelessness and accidents both in the home and at work. It is an intangible thing and has a variety of effects on people, it presents special assessment problems and is something which has no national legislation to control it. Yet it has to be tackled because noise is with us to such a degree that in many instances health may become prejudiced or impaired. Historically we refer to the ice age, stone age, bronze age and so on. The present time could well be called the "Noise Age." Progress has brought with it machinery, designed to increase speed and output—machinery which now brings noise to formerly quiet neighbourhoods. As a nation we have, in the main, become tolerant, oft times oblivious, to the noise of traffic, machinery, aircraft and the general bustle that surrounds us by day, but when night falls it is then that noise makes its greatest impact.

Noise affects people in different ways and this is well demonstrated when investigations are carried out into complaints of this character. Some are untroubled by it; some are troubled when a noisy machine stops; others become so conscious of noise that it produces a phobia.

Bristol, like many of the larger cities and towns, receives a number of complaints of noise each year. The noise sources vary in character, and many of them are associated with vibration. The man trying to make some extra money by producing articles at home, launderettes, garages, bakeries, light and heavy industry, all make their contribution. Where plans for premises are submitted and it is estimated that noise may arise from operations to be carried on, an assurance is required from the proposers that every precaution will be taken to minimise noise nuisance. This assurance can be required both on planning and public health grounds. So often, however, it is existing premises that provide a major problem, since when plant is modernised, noise creating machines are often introduced, over the installation of which neither the Planning nor Public Health Department have control. This type of premises frequently adjoins houses, offices or schools, and whereas they formerly caused no noise nuisance and were accepted by the residents in the area, the introduction of noisy machinery often produces a crop of complaints and a clamour for "something to be done" about it.

In the absence of national legislation to control this form of nuisance, Bristol Corporation secured the consent of Parliament to include a section in the *Bristol Corporation Act, 1938.* The section reads:

> "A noise nuisance shall be liable to be dealt with as a statutory nuisance under the Act of 1936 provided that no complaint to do justice under Section 99 of the said Act shall be of any effect, unless it is signed by not less than three householders or occupiers of premises within hearing of the noise nuisance which is the subject of the complaint.
>
> "For the purpose of this section a noise nuisance shall be deemed to exist where any person makes or continues or causes to be made or continued any excessive or unreasonable or unnecessary noise which is injurious or dangerous to health.
>
> "In any proceedings under the Act of 1936 in respect of a noise nuisance occasioned in the course of any trade, business, or occupation, it shall be a good defence for the person charged to show that he has used the best practical means of preventing or mitigating a nuisance having regard to the cause and to other relevant circumstances."

This section goes some way to securing a reduction of noise but in the case of industry the defence provided reduces the use which could otherwise be made of the legislation. In any case the effect upon health is difficult to judge and must invariably depend on a combination of (*a*) an assessment of the degree of noise and its possible effect on health, and (*b*) the public health inspector's personal reaction. Other factors have to be taken into account too, such as night workers, people in the vicinity who may be suffering from nervous ailments, and the effect of noise on the amenity of a district.

Sound level meters have been tried on a number of occasions, and whilst a decibel reading is achieved it gives no real indication as to the effect of the particular noise on health. A high decibel reading recorded from a steady noise is frequently less troublesome than a quieter undulating or high-pitched noise.

The elimination of noise or its reduction to a reasonable level is only achieved, in most cases, as the result of many interviews with occupiers of offending premises and complainants. A number of visits are made at varying times throughout the day and night, and, by a variety of means, a position acceptable to complainants is ultimately achieved.

Accounts of a selection of noise nuisances dealt with during the year demonstrate the problems involved.

A factory that had been operating in a residential area for many years eventually became the cause of noise nuisance due to the use of a large extractor fan which ran for continuous periods of up to 72 hours. The fan, employed to draw the hot air up through and remove the moisture from a deep layer of barley, became noisy and staccato in action. After many visits, letters and interviews a new three-speed fan was fitted which is set to the lowest gear during the night hours. Residents adjoining the factory expressed complete satisfaction with the improvement brought about.

A complaint of noise from a large new boilerhouse was still under review at the end of 1958. This has already been referred to in the section on atmospheric pollution. The building of the boilerhouse started almost two years ago and development is still continuing. The site is surrounded on three sides by residential property, and soon after the boiler firing started, complaint of noise was made, culminating in a petition from householders living in the vicinity.

On investigation it was found that noise emanated from circulating pumps serving a calorifier system, an oil pump, and generally from the furnace oil burners. Following discussions with the controlling body, works were carried out to baffle the pumps; the defective oil pump was replaced and instructions were given to the boilerhouse staff by the management to keep windows and doors shut as much as possible. The level of noise was reduced considerably, but complaints continued to be made by householders living nearby and further measures were being considered at the close of the year. The proximity of some of the residential properties to the boilerhouse makes it seem improbable that complete absence of noise will be attained for the occupiers, but every effort is being made to reduce it to a reasonable level.

In the early part of 1958 complaint was received regarding the excessive noise caused by the testing of compressor engines in a yard surrounded by residential properties. On investigation it was found that the firm had just taken over the tenancy of the yard from a builder. The business of the firm was to take sub-contracts on work needing compressors, and thus engines were normally away from the yard doing work. They were only brought in for repair and routine maintenance and, of course, need to be tested prior to being put back into service. On checking with the Planning Department it was found that the new use did not constitute a material change, so that any action would have to be supported by the relevant local law dealing with noise.

The testing of the machines was for short periods only and then only during normal working hours. It was rare for a machine to run beyond 5 p.m. weekdays and 12 noon on Saturdays. Unfortunately, the problem was not helped by the fact that included among the complainants was a person who suffered from migraine, and another who regularly worked at night and slept during the day. During all the investigations contact with the compressor firm was on an amicable basis and any co-operation asked for was given to the public health inspector.

After consultation with the Town Clerk the position resolved itself as follows—that no proceedings could be taken since the circumstances did not fall within those set out in the Noise Nuisance section of the Bristol Corporation Act. However, the firm were prepared to move to premises more favourably placed in relation to residential property and the Planning Department agreed to help in this respect.

This was the position at the close of the year.

A complaint against the operation of a laundry was made by the occupier of the adjoining premises. The substance of the complaint was the working of a washer spin drier, and an ironing machine, until a late hour, sometimes until 12 midnight.

Previous complaint had been made about the excessive noise from machinery. This had been remedied but the residual noise, although considered reasonable for the type of machinery and process, was a nuisance by reason of the lateness of operation. As the public health inspector felt that circumstances warranted further action, a representative of the Town Clerk's Department visited the premises at a time when the machines were operating and eventually a warning letter was sent to the laundryman. This letter asked the laundryman to re-arrange his business to avoid running beyond 8 p.m. at night and not before a reasonable hour in the morning, and so far this action seems to have attained its objective.

Preliminary survey into the school meal service

Kitchens and canteens of the School Meals Service are visited for a variety of purposes by the staff of the Chief Public Health Inspector, e.g. milk sampling, examination of food-stuffs, meat contracts, and general public health matters, but no programme of detailed inspection of individual school food premises has so far been carried out.

The School Meals Service is under the control of the School Meals Officer of the Chief Education Officers' Department, but it was felt that since kitchens and canteens are food premises within the terms of the Food Hygiene Regulations, 1955, the Public Health Department should visit these premises in order to determine the degree of compliance with the Regulations and to assess the hygienic standards attained by the food handling staff.

In order to discuss the proposal a meeting was called by the Medical Officer of Health, which was attended by the Chief Education Officer, the School Meals Officer, the Senior Medical Officer of the School Health Service and the Chief Public Health Inspector.

It was decided that, as a first move, one of the senior district public health inspectors would carry out a preliminary survey of kitchens and canteens, the types to be inspected to represent a cross-section of the premises used by the School Meals Service.

School meals are provided for children in four main ways:—

(a) Central kitchens, which are divorced from schools, where food is prepared in bulk and subsequently distributed to an allocated number of schools;
(b) School kitchens, where food is prepared for the school of which they form an integral part;
(c) School kitchens, where food is prepared for the school itself, and also provides a Container Meal Service to two or three other schools;
(d) Canteens—where schools rely on a Food Container Meal Service from the Central or Type 'C' kitchens;

Kitchens and canteens vary in age and character, some being modern, some immediate post-war and others pre-war. A number of them are housed in prefabricated, Nissen hutted, or hired buildings. Recently constructed schools have kitchens of a very high standard, but older schools, as is to be expected, lack many of the modern hygienic requirements, i.e. abundant lighting, adequate mechanical ventilation, good layout, working space and adequate food storage facilities.

Walls and food preparation surfaces generally conform with the requirements of the Food Hygiene Regulations.

It must be said, however, that, whether the kitchen staffs are working in near ideal kitchens or in the older, less well appointed kitchens, their diligence, standard of hygiene, and maintenance of kitchens and equipment is of a very good order. The constant efforts of the School Meals Officer, Area Supervisors and individual kitchen supervisors towards a good standard of hygienic storage, preparation and service of food, is commendable.

The survey coincided with the introduction of training courses for kitchen staffs, which were organised by the School Meals Officer. Discussions took place on a number of occasions with the School Meals Officer regarding hygiene in kitchens, and assistance and advice was given, when required, in preparing material for the training programmes.

Concurrent with the survey, seven lecture/demonstrations on "Food Hygiene" were given to supervisors, kitchen and canteen staffs. These were well received and stimulated much interest amongst those who attended.

A report on the survey and associated activities was presented to the Medical Officer of Health. When this has been discussed, it is intended to proceed with a programme of inspection of all school kitchens and canteens. Individual reports are to be prepared, which will give the Public Health Department's opinion, together with recommendations on each premises; in this way any improvements required can be considered on a progressive and priority basis by the School Meals Officer.

Colonial Immigrants

During the latter part of the year a representative of the Institute of Race Relations visited the Chief Public Health Inspector's office. The meeting was arranged by the Colonial Workers' Welfare Officer who requested that the Institute's representative should be given as much information as possible to assist him in a survey which he was making. The Chief Public Health Inspector, the Deputy Chief Public Health Inspector and district inspectors took part in the discussions, which included the housing conditions of coloured people, with special reference to the question of overcrowding, and their behaviour from the point of view of keeping their accommodation in a sanitary condition.

The representative expressed himself to be well satisfied with the information which was made available to him.

Technical Training

The importance attached to environmental health work is increasingly indicated by the requests for assistance in technical training in many fields. At one time, too little attention was paid to this important subject in the curriculum of many professional and training courses, but there is a growing realisation that healthy living and healthy environments are the basis of our daily lives.

The principal courses of this character arranged within the Department are the Public Health Inspector first and second year, Smoke Inspector and Meat and Other Foods Inspectors' courses. The College of Technology, Bristol, which is a recognised training centre, provides the facilities for these courses, and, where necessary, the teaching staff of the College collaborate with the Health Department's staff in the lecture programmes. Courses are designed to afford students the maximum opportunity for good instruction and to this end lecturers, each a specialist in his own subject, are formed into a teaching panel. It is a pleasure to record that the veterinary lecturers from Bristol University have joined the teaching panels and have provided a valuable and very much appreciated contribution to the training courses.

Whilst the students attending technical courses include many from local authorities throughout the South-West and South Wales, the courses are of particular benefit to our own staff. Every public health inspector on the staff either holds the qualification of the Royal Society for the Promotion of Health for Meat and Other Foods Inspector, or is taking an approved course at the present time. Of the Bristol Inspectorate, who are directly concerned with clean air, nearly 60% are qualified smoke inspectors or have attended an approved course of training in the subject. It is anticipated that this percentage will be increased once those younger inspectors, at present on the Meat and Other Foods course, have completed this part of their study programme.

The Inspectorial staff, having taken these additional courses, are not only better qualified and therefore able to perform their duties more efficiently, but are able to take on additional responsibilities, when required. This is of great value to the Department on occasions such as illness, holiday periods and temporary vacancies on the staff.

Apart from the major training courses, series of lectures and practical demonstrations have been arranged for Health Visitors, Institute of Housing, House Matron, Pre-Nursing, Domestic Science and Food Handling Courses. In this way, interest is aroused in the Environmental Health Service and many more people are able to see health matters in their right perspective.

Health Education

The role of health education in the prevention of ill-health and disease continues to be given the measure of importance it merits. It is unfortunate that with the increasing range of work performed by public health inspectors, the extent of health education carried out is limited to the small amount of time which can be allocated to it. Realising, however, the degree of achievement which can be attained in the field of preventive medicine, through health education, every effort is made to collaborate in health education programmes. Teaching in this field has been received with much interest and enthusiasm and it is felt that any time devoted to this work has been worth while.

The Public Health Department is equipped with films and film strip projectors and an epidiascope, together with a good selection of films and film strips. Considerable use is made of these visual aids in conjunction with talks given on a variety of subjects.

During the year, health education talks were given to 800 school children, 400 members of the general public and the food hygiene talks to catering staff of the United Bristol Hospitals were continued. As mentioned elsewhere, lecture/demonstrations on food hygiene were also given to supervisors and kitchen and canteen staffs of the School Meals Service, when over 200 food handlers were instructed on this important health subject.

Trainee Public Health Inspectors

The training scheme continues to prove a mutual asset, since not only does the Department benefit from having valuable assistance for the inspectors in their field work, but the trainees, too, have a splendid opportunity of gaining a wide practical experience in all aspects of environmental health work.

In these days when there is difficulty in maintaining inspectorial staffs at establishment level it is a good policy to encourage and assist in the training of young men of good educational standard, who, when qualified, help to reduce the number of public health inspector vacancies. Students, who over a period of years, train with a local authority, are well versed in the working methods, policies and types of problem associated with that particular authority.

It is pleasing to report that, without exception, every inspector on the staff co-operates fully in the training scheme. This is very much appreciated by the students, who, in return, work conscientiously on any task which may be assigned to them.

Four of the six trainees will finish their training in June, 1959, and the remaining two will sit for their qualifying examination in 1960.

Foreign Visitors

Five visitors from other countries visited the Environmental Health section during the year. Programmes of practical visits, including such matters as housing, meat and food inspection, port health, food and drugs work and clean air, were also arranged for our overseas colleagues, so that they might derive the fullest benefit from their tour in this country.

Countries of origin of the various visitors were Australia, Pakistan, Mauritius, Eire and Malta.

RAT DESTRUCTION
DISINFECTION AND DISINFESTATION

Rodent Control

The *Prevention of Damage by Pests Act, 1949*, imposes three specific duties on local authorities in order that rodents may be effectively controlled. The duties constitute taking such steps as may be necessary to secure, so far as practicable, that their district is free from rats and mice. In order to achieve this state of affairs the local authority must:—

(a) from time to time carry out inspections of their areas;

(b) destroy rats and mice on land of which they are occupier;

(c) enforce the duties of owners and occupiers of land in order that they shall take reasonable steps to destroy rats and mice and keep buildings and land free from this form of infestation;

Rodent control is a community job. Even though premises may be clear of rodent infestation the presence of rats and mice elsewhere can prejudice the health of a community in a number of ways and can result in extensive damage to the structure and fittings of buildings. They attack food supplies in fields, warehouses and all types of food premises, and though they eat a considerable quantity of food an even greater amount becomes unfit for consumption due to contamination by these pests. It is too little appreciated that rats and mice can be the cause of food poisoning outbreaks and are capable of spreading disease fatal to man.

As in every other sphere of environmental health work, scientific methods are now used to reduce the rodent population. Considerable research has been and continues to be carried out into the breeding, feeding and living habits of rodents. Today there is no place for casual or indiscriminate treatment. Treatment is applied properly and systematically, using poisons, anticoagulants and other approved methods in order that destruction of rodents may be secured. Success in this field of Public Health relies not only on the work of the rodent control staff of the Department but on the co-operation of many departments of the Corporation and the general public. By reporting the presence of rats and mice, taking steps themselves to destroy rodents, and proofing buildings against infestation, a considerable contribution can be made towards the continuous campaign being waged against rodents in our City.

The total number of complaints received during the year was as follows:—

Rats	1,739
Mice	857
TOTAL	2,596

The number of complaints brought forward from the previous year and returned as not completed was 89, making an overall total of 2,685 complaints dealt with. To cover these complaints the Rat Operators made 10,157 visits.

The following table shows the results and how these complaints were dealt with:—

Rat Repression—Summary of work done during 1958

1957					*1958*			
Business Premises	*Houses*	*Other*	*Total*		*Business Premises*	*Houses*	*Other*	*Total*
49	46	22	117	Complaints incompletely dealt with brought forward	28	37	24	89
971	1,485	418	2,874	Complaints received ..	779	1,286	531	2,596
1,020	1,531	440	2,991		807	1,323	555	2,685
				Remedial action:— *Infestation cleared:—*				
917	1,216	407	2,540	By Corporation ..	748	1,162	518	2,428
21	95	1	117	By occupiers ..	9	54	2	65
54	183	8	245	No action required ..	16	56	8	80
28	37	24	89	Incompletion at end of year carried forward	34	51	27	112
1,020	1,531	440	2,991		807	1,323	555	2,685

Under sub-section 1 of section 3 of the *Prevention of Damage by Pests Act, 1949*, 2,510 occupiers notified the Department that rats and mice infested their premises and appropriate action was taken.

Verbal notices were served on occupiers or owners of 86 premises drawing attention to their obligations under the above Act. In all cases these notices were complied with.

Discretionary powers with regard to the waiving or adjustment of charges in view of the financial position or owing to causes outside the control of the occupier were applied in 37 cases.

Close attention was paid to the large building projects being carried out in the City and the new bridge site at Bath Bridge. No infestation was detected at these points. The Clerks of Works have co-operated in keeping the sites clear of rubbish and waste food, thus preventing possible infestation and harbourage.

The tipping areas under the control of the Transport and Cleansing Department together with the destructor works and pig-food processing plant at Eastville were inspected frequently, and where necessary preventive measures taken.

The offensive trades premises are situated in the St. Philip's Marsh area, and during the period under review no complaint of rat infestation was received from this area.

Of the large number of house drains suspected of causing rat infestation 103 were eventually referred to the Chief Public Health Inspector's office for the application of tests and, where necessary, investigation.

The recent treatments of the City's sewer system during the year again showed encouraging results. It was possible to reduce the man-power employed by approximately one-third, thus enabling the City Engineer's staff to be transferred to other work. A corresponding saving was made in the quantity of materials used, without impairing the efficiency of the work involved. In the Hartcliffe, Withywood and Bishopsworth areas, 440 new manholes were traced and placed on reference maps. These were test-baited, but negative results were recorded over the whole area.

The following table shows the record of this work and attention is drawn to the absence of any complete poison takes being recorded.

No. of manholes baited	3,369
No. of manholes showing prebait take	2,061
No. of manholes showing complete poison take	Nil
No. of manholes showing part poison take	1,414

The assistance and advice of the officials of the City Engineer's Department during these investigations has helped considerably in getting a clearer picture of the rat infestation in the sewers.

Under sub-section 1, section 2, surveys and inspections have been made of 38,004 premises. The following table shows the result of these surveys:—

Dwelling Houses	35,881
Business Premises	2,057
Local Authority	66

The number of infestations discovered were:—

Rats	21	Mice	577

Each local authority has its own obligations under the *Prevention of Damage by Pests Act*, and in connection with this the river, harbour and canal banks have been closely inspected, and where necessary, treatment was carried out.

During the period under review the following Committees took advantage of the services of this Department:— City Engineer, Education, Allotments, Fire Service, Police, Markets, Transport and Cleansing, Catering, Welfare Services and the new Council House.

The City, Avonmouth and Portishead docks areas have again maintained their satisfactory condition, and although the movement of stores and materials in these areas has been heavier than in past years, no damage was found in any material taken out of storage. The Chittening Trading Estate, which is an extension of the storage facilities of Avonmouth docks, also presented a similar picture.

The following table shows the number of rats recovered from all sources:

1957					*1958*			
Avonmouth	*Bristol*	*Portishead*	*Total*		*Avonmouth*	*Bristol*	*Portishead*	*Total*
				Rats recovered:—				
				Docks, quays, wharves, etc.				
101	—	—	101	Brown	60	—	—	60
246	—	—	246	Black	97	—	2	99
—	—	—	—	Mice	20	—	—	20
				City:—				
—	142	—	142	Brown	—	98	—	98
—	105	—	105	Black	—	49	—	49
—	66	—	66	Examined for plague	—	30	—	30
—	97	—	97	Mice	—	64	—	64
Grand total— 594 rats recovered					Grand total— 306 rats recovered			

Complaints of foxes and rabbits continue to come in from various parts of the City and in most cases these were successfully dealt with.

The period of late summer and autumn proved very active with regard to wasp infestation. One hundred and forty nests were treated and destroyed by this Department, where they were inaccessible or beyond the control of the occupiers. In forty other cases advice was given and further inspection showed that these were under control.

Two complaints of snakes in gardens were received and in both cases were found to be the result of boys bringing them home. The boys, instructed by their parents to release them, unfortunately did so in their neighbours' gardens!

It is pleasing to report that the general condition of the City and County regarding the rat and mouse population is good, and that the co-operation and goodwill of the general public has done much to bring this position about.

Disinfection and Disinfestation

The Public Health Department's disinfection and disinfestation centre at Feeder Road has once again made a practical contribution to the preventive work of the Health Department. A considerable volume and variety of work is carried out in this compact Station by a staff of one superintendent and twelve men.

During the early part of the year the installation of two new electrically operated oil-fired boilers and two new steam disinfectors was completed and all were in full operation by April. The steam disinfectors can be automatically or manually operated and tests carried out in the disinfecting chambers have proved that the steam treatment of articles is efficiently performed.

There are a number of articles such as furniture, leather and gym shoes which cannot be subjected to steam treatment. Fumigation methods have, therefore, to be employed and the capacity to do this has been very much improved during the year by the construction of a cement lined brick fumigation chamber having a floor area of approximately 120 sq. ft. The chamber is fitted with twin double doors at the front, a mechanical extraction fan in the rear wall and has a thermostatically controlled electric heater inside the chamber. The efficiency of the fumigation process is improved by the temperature factor and adequate clearance of fumigant is ensured by the extractor fan which is operated by a switch outside the building.

Another addition to the Disinfecting Station has been the provision of a new brick building which is used for the storage of condemned foodstuffs awaiting removal for destruction. As will be seen from the detail of work carried out by the Station, over 50,000 cans of condemned food and more than 10,000 lb. weight of other foodstuffs were collected during the year. The new store, therefore, affords suitable storage facilities for condemned food awaiting disposal by incineration or burial in tips.

A case of anthrax was reported by a hide and skin company during the year. The infected hides were burnt, the floor of the store was scorched with flame guns and subsequently sprayed with a strong disinfectant solution and the cattle truck which had carried the hides was also disinfected inside and out.

The battery of flame guns which has proved such a valuable addition to the equipment of the Station was also used to destroy pig carcases affected with swine fever. The big advantage of the flame guns is that they allow destruction to take place without the necessity of removing infected carcases by transport.

The general work of disinfection, disinfestation and destruction of infected or infested articles, scabie and vermin baths, soiled linen collection, laundering and return service, drain testing and many other duties continues to make a useful contribution in the work of safeguarding the health of the community.

Disinfections, Drain Tests, etc.

1957		*1958*
11,270	Premises disinfected	8,808
70,437	Articles disinfected	52,018
9,230	Articles disinfested	3,019
1,912	Articles destroyed	3,994
337	Vermin repression—by spraying	379
128	Vermin baths— men	117
5	— women	2
78	Disinfections for hospitals and nursing homes	58
297	Public library books collected and disinfected	185
3	Private library books collected and disinfected	4
43,809	Foodstuffs, etc., destroyed—canned food	52,668
22,561 lb.	other foodstuffs	10,616 lb.
811	Food premises visited	768
57	Drain tests	51
1,488	Other work	2,378

ADMINISTRATION OF THE SHOPS ACT, 1950 AND KINDRED LEGISLATION DURING 1958

SHOPS ACT, 1950

General Administration

The following is a report on the work carried out during the first full year since this section was amalgamated with the Environmental Health Services. No new legislation was passed, but two important rulings were made in the Courts of Appeal. One affects only cases where prosecutions for failing to exhibit notices are concerned but the other gave a definite decision regarding mobile trading. The case, Stone *v.* Boreham, was heard by Lord Goddard C.J., Slade and Devlin J.J., and the latter wound up the case by saying: "It must now be taken as definitely decided in these Courts that a mobile van is not a shop within the meaning of the Shops Act, 1950, and if Parliament desires to make it so it must introduce new legislation for that purpose."

The number of visits to premises subject to the Shops Act has risen from 6,154 in 1957, to 6,919 in the year under review. Seven prosecutions were taken and fines totalling £9 were imposed.

An innovation introduced during the year was the assistance given by assistant and trainee Public Health Inspectors in observation patrols on Wednesday afternoons, Thursday evenings, and, except for the latter part of the year, on Sundays. This has enabled wider coverage of the City in respect of the closing provisions of the Act. When definite infringements have been reported, the Shops Inspectors have followed up by making a routine visit and giving a verbal warning to the offenders. In such cases and where shops are taken over by persons who are not familiar with the provisions of the Act, the occupiers are given a pamphlet which contains the principal regulations in a comprehendable form under the following headings:

Closing of Shops:
    Weekly Half Holiday.
    Evenings.
    Sundays.

Conditions of Employment:
    Heating, lighting, ventilation, sanitary accommodation and washing facilities.
    Seats for female assistants.
    Intervals for meals.
    Assistants' half holidays.
    Sunday employment.
    Young persons' working hours.

The introduction of self-service stores in the past few years has created some difficulties in the provision of seats for female assistants, but this has been largely overcome.

Exemption Orders

The Health Committee made Orders exempting the following exhibitions from the general closing hours:

1. City and County of Bristol Ideal Homes Exhibition—Victoria Rooms.
2. The Bristol Aquarists Society—Bishopston Parish Hall.
3. Civic Horticultural Show—Durdham Down.

Three other applications were considered by the Committee, who were not satisfied that the retail trade or business carried on was subsidiary or ancillary to the main purpose of the exhibitions and, therefore, made no orders in respect of:

1. T.W.W. Television.
2. Bristol June Dairy Festival Exhibition.
3. Fifth Annual Bristol Ideal Homes Exhibition.

Other Enactments

(*a*) *Young Persons (Employment) Act, 1938*

Routine visits were made to premises at, or from which, young persons who came within the scope of this Act were employed. In only one instance was an infringement of the Act observed.

(*b*) *Employment of Women, Young Persons and Children Act, 1920*

The British Transport Commission are the only employers visited under this Act, and it appears that they are now able to exclude young persons from all night employment. About 200 young persons are on the register.

(*c*) *Sunday Entertainment Act, 1932*

All the cinemas which open on Sundays were visited. One company was reported to the Licensing Justices for failing to comply with the regulations in respect of the cinema managers employed by them. The company has made arrangements for strict compliance with the provisions of the Act in future and no further action was considered necessary.

Shops Act—Environmental Health Aspects

The integration of the office of the Chief Public Health Inspector and Chief Shops Inspector has resulted in an improvement of both the administration and field work carried out under the *Shops Act, 1950.*

The statutory duties under the Act are broadly divided as follows:

(*a*) Closing hours, conditions of employment of shop assistants, hours of employment of young persons, Sunday employment and Sunday trading.

(*b*) Arrangements for health and comfort of shop workers.

The staff is as follows: the duties under (*a*) are carried out by shops inspectors specially employed for this purpose, while the technical duties under (*b*) are performed by the district public health inspectors.

A very close liaison exists between the two sets of officers. When shops inspectors visit premises to check on records which have to be kept by the occupiers they also carry out a general inspection of the premises and if matters such as heating, lighting, ventilation, sanitary accommodation and washing facilities do not appear to be of the required standard, notice of the fact is passed to the district public health inspector for his attention. A number of improvements are brought about by this direct and helpful method of notification.

In the case of food premises some of the health and hygiene requirements of the Food Hygiene Regulations and Shops Act are duplicated, for example, lighting, ventilating and washing facilities. Inspections by public health inspectors are obviously designed, therefore, to secure compliance with both the Act and the Regulations at the same time.

Just under 3,000 visits were made by public health inspectors to registerable and non-registerable food and other shops and almost 7,000 visits and revisits were carried out by the shops inspectors, this making a total of nearly 10,000 visits to shops during the year.

Shops Act, 1950

	1958	*1957*	*Premises subject to inspection— Approx. number*
Visits—Retail	5,597	4,988	8,200
Wholesale	220	202	400
Revisits — Retail	1,083	921	
Wholesale	19	43	
Infringements — Failure to exhibit notices	850	620	
Closing hours	69	— (a)	
Sunday employment	27	—	
Half holiday	32	19	
Hours of young persons	7	3	
Meal intervals	26	14	
Seats for female assistants	8	11	
Verbal Warnings	1,033	640	
Warning Letters	—	23	
Legal Proceedings	7	4	
Employment of Women, Young Persons and Children Act, 1920			
Visits	5	4	2
Revisits	1	2	
Infringements — Records	—	—	
Night employment	2	—	
Verbal Warnings	—	—	
Written Warnings	—	—	
Legal Proceedings	—	—	
Section 38—Assistants' Facilities			
(a) *Improved*	39	— (b)	
(b) *Referred to public health inspectors*	78	221	
Sunday Entertainment Act—Cinemas			
Visits	62	53	21
Revisits	3	1	
Infringements — Holidays	4	2	
Records	3	—	
Verbal Warnings	3	2	
Reported to Licensing Justices	4	—	
Legal Proceedings	—	—	
Young Persons (Employment) Act, 1938			
Visits	74	71	70
Revisits	—	2	
Infringements — Notices	—	—	
Sunday employment	—	—	
Half holidays	—	3	
Hours	—	—	
Meal intervals	1	—	
Night employment	—	3	
Verbal Warnings	1	6	
Warning Letters	—	—	
Legal Proceedings	—	—	
Time Worked Outside of Office Hours and Observation Patrols			
(a) *Shops Inspectors*—			
Evenings	24 hrs. 5 mins.	33 hrs. 14 mins.	
Sundays	40 hrs. 25 mins.	69 hrs. 5 mins.	
Wednesdays (p.m.)	169 hrs. 49 mins.	140 hrs. 5 mins.	
Saturdays (p.m.)	7 hrs. 15 mins.	—	
(b) *Assistants*—			
Evenings	43 hrs. 35 mins.	— (c)	
Sundays	47 hrs. 50 mins.	—	
Wednesdays (p.m.)	103 hrs. 25 mins.	—	
Saturdays (p.m.)	—	—	

Note: (a) Figures for 1957 not available as they were not included on previous statistics.

(b) Additional item because shop inspectors now have certain improvements carried out without reference to public health inspectors.

(c) No observation patrols, except by inspectors, prior to 1958.

THE REPORT OF THE PUBLIC ANALYST AND OFFICIAL AGRICULTURAL ANALYST FOR THE CITY AND COUNTY OF BRISTOL FOR THE YEAR 1958

(*Incorporating the Work on behalf of the County of Gloucester and the City of Gloucester*)

E. G. Whittle, B.Sc. (Lond.), F.R.I.C.

STAFF FOR THE YEAR

Public Analyst	E. G. Whittle, B.Sc. (Lond.), F.R.I.C.
Additional Public Analyst	I. Dembrey, B.Sc. (Bristol), F.R.I.C.
First Assistant	G. G. Fisher, B.Sc. (Birm.), A.R.I.C.
Second Assistant	D. J. Taylor, B.Sc. (Lond.), A.R.I.C.
Assistant Analysts	Miss M. V. Westcott, M.Sc. (Bristol), Miss A. Sinclair Rose, B.Sc. (Dublin).
Assistant Spectroscopists	Mrs. J. K. Noyes and one vacancy.
Chief Technician	C. R. Turner.
Chlorination Officer	R. C. M. Putnam.
Student Technicians	M. A. Wagner, Miss D. M. Rhead (now Mrs. J. Withers), Miss G. A. Harcombe (now Mrs. M. Churchouse), R. G. McKenna, J. S. Wilson, A. C. Jacobs, Miss M. deGay, D. Morgan, G. P. Hall.
Secretary	Mrs. I Hall.
Assistant Secretary	Miss S. M. Kirby.
Laboratory Attendants	Mrs. N. Budd, Mrs. Comber (part-time).

INTRODUCTION

For the second year running the number of examinations has fallen just short of the 10,000 mark. The actual figure was 9,314, some three hundred less than in 1957. This was achieved without a full staff and I have little doubt that had we been fully manned, to include the services of the Assistant Spectroscopist, then we should quite probably have achieved our first ever 10,000. Regrettably, Mr. Atherton, the Spectroscopist referred to, left the Department on the 1st January to join the staff at Harwell and throughout the year all efforts to replace him failed. The only other change in personnel was the departure of Mr. J. S. Wilson, who was succeeded by Mr. Denis Morgan late in the year. We have, however, had two changes of name on marriage, Miss Rhead to Mrs. Withers and Miss Harcombe to Mrs. Churchouse. Both have continued their work in the Department and I am most grateful for the help they have given and continue to give. I also have much pleasure in recording that Mr. G. G. Fisher has secured the Fellowship of the Royal Institute of Chemistry and I hope also that Mr. D. J. Taylor will follow with the same success early in the New Year. These gentlemen are indeed the main props of the Department and with Mr. Fisher's well merited success as the spur, I am sure Mr. Taylor's efforts will be equally successful. For them both my earnest hope is that the Authority will also recognise and reward these achievements, for the Public Analyst service can ill afford to lose such men.

The increased sampling noted in 1957 has been well maintained this year, and in particular, many feeding stuffs have been submitted by the Port Sampling Officer with a view to increased control over the several factories manufacturing these commodities for nation-wide distribution. In this way "analytical watch" can be kept on many thousands of tons of feeding stuffs.

Mention must be made of two landmarks in the affairs of the laboratory. At the end of October, Alexander Pickard, Town Clerk of Bristol, retired. He was indeed a good friend to the laboratory and we would wish him a long and happy retirement.

Early November saw what was likely to be the last Preventive Medicine Sub-Committee meetings. New arrangements operating from the 1st January 1959 would mean that the Department reverts to the direct control of the Local Authority. Since 1933 the Department has, in fact, been the Chemical Section of the Department of Preventive Medicine of the University of Bristol. The change is inevitable and logical in the light of circumstances. I would pay my tribute to all members of the Sub-Committee, both past and present, for the valuable and generous help given for over 25 years, and in particular, over the 12 years during which I have been Public Analyst. We still lack the laboratory accommodation that we would desire, but in the matter of apparatus and equipment our demands have been met sympathetically and generously. It is now my hope that the new era will bring a well designed laboratory and that quite possibly this will be the first Public Analyst Laboratory, designed as such, that has been built for many years. This would be a great opportunity to design and operate a laboratory to serve the scientific needs of an area representing nearly a million people.

Finally, I wish to express my thanks to all members of staff for their help and co-operation, and to all Inspectors of the three authorities under our jurisdiction for the cordial relations, help and consideration throughout the year.

The Report is divided in the usual fashion, that is into the Introduction and eleven parts as under:

Part I	Food and Drugs Act.
Part II	Fertilisers and Feeding Stuffs Act.
Part III	Waters, Swimming Bath Samples, Effluents, Sewage and Chlorination.
Part IV	Rag Flock Act.
Part V	Pharmacy and Poisons Act.
Part VI	Miscellaneous Analyses.
Part VII	Report on the work for the County of Gloucester.
Part VIII	Report on the work for the City of Gloucester.
Part IX	Atmospheric Pollution.
Part X	Spectroscopy.
Part XI	Other Activities.

Summary of Examinations

Table 1—City and County of Bristol

	March	*June*	*September*	*December*	*Total*
Milk	295	149	166	366	976
Food and drugs	823	712	630	776	2,941
Waters and swimming baths, etc.	76	59	64	61	260
Fertilisers and feeding stuffs	57	61	62	71	251
Miscellaneous	221	185	255	261	922
	1,472	1,166	1,177	1,535	5,350
Rag flock	15	7	11	15	48
District Inspector samples	5	4	13	14	36
Pharmacy and Poisons Act	9	17	2	3	31
Atmospheric Pollution—					
Lead peroxide	36	24	24	24	108
Deposit gauges	27	18	18	18	81
Silica and phosphorus	9	nil	nil	—	9
Zinc and fluorine	6	6	6	6	24
Smoke recordings, City	77	75	79	78	309
,, ,, Port	76	84	86	78	324
Spectrophotometric Analyses	231	155	228	201	815
Chlorination	36	60	76	51	223
Vitamin B_{12} assays	—	—	—	118	118
	527	450	543	606	2,126
Total	1,999	1,616	1,720	2,141	7,476

Table 2—County of Gloucester

	March	*June*	*September*	*December*	*Total*
Milk	202	181	150	181	714
Food and drugs	135	137	105	148	525
Waters and swimming baths	17	36	28	32	113
Fertilisers and feeding stuffs	18	18	18	19	73
Miscellaneous	14	2	6	10	32
	386	374	307	390	1,457
Pharmacy and Poisons	—	—	2	8	10
Atmospheric Pollution—					
Lead peroxide	18	21	21	21	81
Deposit gauges	17	21	21	21	80
	35	42	44	50	171
Totals	421	416	351	440	1,628

Table 3—City of Gloucester

	March	*June*	*September*	*December*	*Total*
Milk	3	—	18	28	49
Food and drugs	22	28	21	34	105
Waters	—	2	—	—	2
Fertilisers and feeding stuffs	3	2	—	3	8
Miscellaneous	—	—	—	1	1
	28	32	39	66	165
Atmospheric Pollution—					
Lead peroxide	4	6	6	6	22
Deposit gauges	5	6	6	6	23
	9	12	12	12	45
Total	37	44	51	78	210

PART I. FOOD AND DRUGS ACT

New Legislation and Recommendations in 1958

The Labelling of Food (Amendment) Regulations 1958 which apply to England and Wales only, revoke Article 8 of the Labelling of Food Order 1953 (which Order has effect as if contained under Section 7 of the Food and Drugs Act 1955) thereby removing the requirement that no liquor shall be described as a cocktail, or as a mixture containing spirits unless it contains not less than 40 per cent proof spirit. Such liquors, however, will still be subject to Article 4 (4) of the 1953 Order which requires them to be labelled with a declaration of alcohol content.

The Poisons List Order 1953 (as amended) was further amended and varied so as to include new substances to Part I and Part II of the Order. In the new Poisons List Order 1958, the third schedule gives a complete and up to date list. Certain phosphorus compounds already in the list have had their names revised according to current usage. In particular, fluoroacetamide, fluoroacetanilide and preparations containing formic acid are now listed as Part II poisons.

The Poisons Rules 1952 as amended up to 1957, were further amended during 1958. Under the *Pharmacy and Poisons Act 1933* and the Poisons Rules 1952 as amended, the container in which a poison is sold is required to be labelled with the name of the poison, and for this purpose names given in the British Pharmacopoeia, the British Pharmaceutical Codex, or the National Formulary are permissible. Paragraph 1 of the Schedule to these Rules places the British Veterinary Codex in the same position in this respect as those works and recognises the change in name of the National Formulary (N.F.) to the British National Formulary (B.N.F.). Paragraph 3 of the Schedule places restrictions on the sale of monofluoroacetic acid and its salts, similar to the restrictions already placed on the sale of strychnine by Rule 16 of the Rules of 1952 as amended, and makes provision for its sale to certain persons for use as a rodenticide on production of a prescribed certificate. The remaining paragraphs of the Schedule impose appropriate restrictions and requirements regarding certain substances now, added to the Poisons List by the Poisons List Order, 1958 (S.I.1958/1015), and make amendments necessitated by the changes of nomenclature in the case of certain poisons recognised by that Order. In particular, the list of phosphorus compounds which is set out in Rule 14 of, and the First, Third, Fifth, Seventh, Eighth and Ninth Schedules to, the Rules of 1952 as amended has been revised: certain relaxations from the general requirements are made in the case of formic acid now added as Part II of the Poisons List (paragraphs 5 and 6) and in the case of fluoroacetamide and fluoroacetanilide, also now added to Part II of the Poisons List, restrictions are imposed by paragraphs 4 (e), 8 (b), 9 (a), 10 and 12, and a relaxation is given by paragraph 6 (a). Paragraph 4 adds many of the substances newly added to the Poisons List to the list of poisons included in the First Schedule to the Rules of 1952, being a list of poisons to which special restrictions apply.

The Public Health (Preservatives in Food) Regulations 1925 were amended twice during the year, making provision for the inclusion of diphenyl and ortho-phenylphenol in other specified fruits. Previously only diphenyl had been allowed in the citrus fruit wrappers to the maximum extent of 40 mg. per 100 sq. cm.

The new amendments are in the shape of—

(*a*) The Public Health (Preservatives etc. in Food) (Amendment) Regulations 1958

and (*b*) The Public Health (Preservatives etc. in Food) (Amendment No. 2) Regulations 1958.

The first amendment permits the importation and sale of citrus fruits which contain not more than 100 parts per million of diphenyl or not more than 70 parts per million of ortho-phenylphenol or mixtures of the two substances such that if the concentrations of each in parts per million are expressed as percentages of 100 or 70 parts per million respectively, the sum of these percentages shall not exceed 100 per cent.

The second amendment extends the inclusion of ortho-phenylphenol to certain other specified fruits. They provide for the sale and importation of the undermentioned non citrus fruits which may contain ortho-phenylphenol within the limits specified.

Apples, pears and pineapples	10 parts per million
Peaches	20 ,, ,, ,,
Melons	125 ,, ,, ,,

The regulations also provide for the carry over of proportionate quantities of ortho-phenylphenol to articles of food in the preparation of which these fruits are used, subject in the cases of articles of food containing melon to a maximum tolerance of 10 parts per million caculated on the melon content.

The Food Standards Committee of the Ministry made some changes in the special limits for copper in food, from those which they recommended in February 1956. The Ministry accept the view of the Committee that the consumer will be adequately protected if limits are observed for the copper content of foods which are consistent with good commercial practice and that, in the absence of any new developments, it is unnecessary to give statutory effect to the recommended limits. The Ministry do not, therefore, intend making any regulations in this respect under the Food and Drugs Acts, but the provisions relating to copper in the Food Standards (Edible Gelatin) Order 1951 and Food Standards (Tomato Ketchup) (Amendment) Regulations 1956 will however be retained.

Revised Limits for Copper (1) 1958

	Parts per million by weight
Beverages ready-to-drink (except those specified below)	2
Other foods (except those specified below)	20
(i) Beverages	
Wine, alcoholic liqueurs, cordials and wine or spirit cocktails, beer, cider, non-alcoholic beverages prepared from cider, and concentrated soft drinks (2)	7
(ii) Other Foods	
Chicory—dried or roasted	30
Cocoa powder, cocoa nib, cocoa mass and cocoa liquor	70 (on the fat-free substance)
Coffee beans	30
Colourings	30 (on the dry colouring matter)
Flavourings	30
Pectin—liquid	30
Pectin—solid	300
Tea	150
Tomato purée, paste, powder, juice and tomato juice beverages	100 (on the dried tomato solids)
Yeast and yeast products	120 (on the dry matter)

(1) Other than statutory limits set out in F.S. (Edible Gelatin) Order 1951 and F.S. (Tomato Ketchup) (Amendment) Order 1956.

(2) Not including concentrates used in the manufacture of soft drinks to which the general limit of 20 p.p.m. would apply.

The question of antioxidants has been dealt with in a similar fashion to the colouring matter in food, that is, a permitted list has been allowed. The new regulations—The Antioxidant in Food Regulations 1958 give first a definition of "antioxidant" within the meaning of the regulations. An antioxidant means any substance which delays, retards or prevents the development in food of rancidity or other flavour deterioration due to oxidation, but does not include lecithin, ascorbic acid, tocopherols, citric acid, tartaric acid, phosphoric acid or any permitted preservative. The regulations do not extend to substances used only as drugs.

The permitted list of antioxidants is as follows:—

n–Propyl gallate
n–Octyl gallate
n–Dodecyl gallate
Butylated hydroxyanisole
Butylated hydroxytoluene

The first schedule to the regulations describe articles of food in which the above antioxidants may be present and the maximum proportion to which they may be added.

Specified Food	*Description of Antioxidant*	*Parts per million by weight*
Anhydrous edible oils and fats, whether hardened or not and vitamin oils and concentrates:	n–propyl gallate	100
	n–octyl gallate	
	n–dodecyl gallate	
	or any mixture thereof	
	Butylated hydroxyanisole	200
	or Butylated hydroxytoluene	200
	or any mixture of B.H.A. and B.H.T.	200
Butter for manufacturing purposes:	n–propyl gallate	80
	n–octyl gallate	
	n–dodecyl gallate	
	or mixture thereof	
	B.H.A.	160
	or B.H.T.	160
	or mixture thereof	160
Essential oils, including their flavouring constituents—isolates and concentrates:	n–propyl gallate	1,000
	n–octyl gallate	
	n–dodecyl gallate	
	or mixture thereof	
	B.H.A.	1,000
	or B.H.T.	1,000
	or mixture thereof	1,000

Butylated hydroxyanisole or butylated hydroxytoluene or a mixture of the two may be used in conjunction with n–propyl gallate or n–octyl gallate or n–dodecyl gallate or mixtures of the last three within the specified limits, provided that the total amount of antioxidant does not exceed the following limits:

(i) Anhydrous oils and fats, etc.	300 p.p.m.
(ii) Butter for manufacturing purposes	240 p.p.m.
(iii) Essential oils, etc.	1,000 p.p.m.

The second Schedule lays down provisions for labelling of the antioxidant containers. These containers must bear a label giving the percentage to the nearest whole digit of the antioxidant, and also the correct description of each and every antioxidant present.

The third Schedule lays down provisions for labelling of containers of food containing antioxidants. The label must give an accurate description of such antioxidant and also the maximum amount present, expressed in parts per million by weight.

A useful handbook of Chemical Compounds used in Agriculture and Food Storage was published by the Minister of Agriculture, Fisheries and Food in May. It was prepared for the convenience of those concerned in the safe use of those chemicals and contained certain recommendations based on the advice of the Advisory Committee on Poisonous Substances used in agriculture and food storage. These recommendations were conveyed to manufacturers who embody them in their instructions for the use of the product in question, and to those able to advise farmers and others concerned with their proper use. The information was considered useful to food and drugs authorities and port health authorities in the exercise of their general responsibilities under the *Food and Drugs Act 1955.*

TABLE 4

Foods

Nature of Sample	*Total Examined*	*Number adulterated or otherwise irregular*
Milks	975	55
Separated milk	1	—
Ales and beers	22	—
Arrowroot	2	—
Almonds, ground	16	—
Apples	31	—
Baking powder	11	—
Butter	29	2
Butter ginger	1	—
Bread	10	—
Biscuits	11	—
Blancmange powder	15	—
Bread crumbs	1	—
Bisk-o-Lait	1	—
Butter beans	2	—
Beans	1	—
Cornflower	13	—
Cream	86	—
Condensed and evaporated milk	24	—
Cheese spread and processed	42	—
Cooking fat and oil	12	—
Cocoa	9	—
Cake and sponge mixtures	13	—
Cakes and pastries	29	1
Curry powder	7	—
Creamed rice pudding	5	—
Cider	23	—
Colourings and flavourings	86	—
Coffee and Chicory Essence	28	—
Coffee beans	12	—
Coconut desiccated	17	—
Custard powder	21	—
Coffee ground	22	—
Cream of tartar	1	—
Curried beans	1	—
Canned soup and powder	31	—
Canned fruit	56	—
Canned vegetables	10	—
Canned meat	26	—
Canned fish	48	—
Candied peel	9	—
Cinnamon	3	—
Chillie powder	1	—
Curried rice	1	—
Coffee sugar	1	—
Cake decoration	1	—
Cloves	3	—
Christmas pudding	3	—
Crystallised fruit	1	—
Chocolate vermicelli	2	—
Capers	1	—
Dried fruit	77	—
Dried vegetables	29	—
Drinking chocolate	7	—
Dried milk powder	19	—
Dripping	4	—
Edifas	7	—
Flour, plain	39	—
Fresh fruit	4	—
Fruit preserving tablets	5	2

Nature of Sample	*Total Examined*	*Number adulterated or otherwise irregular*
Figcaf powder	1	—
Fish and meat paste	25	—
Fish cakes and fingers	11	—
Frozen foods	2	—
Fish products	7	—
Golden raising powder	7	—
Gravy powder and browning	17	—
Ground ginger	3	—
Glacé fruits	13	—
Gelatine	33	—
Ginger	1	—
Golden syrup	1	—
Ginger beer	1	—
German caviare	1	—
Ground nutmeg	2	—
Ground caraway seeds	1	—
Golden crumbs	1	—
Haricot beans	7	—
Herbs	1	—
Ice cream	180	—
Ice lollies	91	—
Icing sugar	5	—
Jellies	50	—
Jelly fruit salad	1	—
Junket and rennet	4	—
Jelly figs	1	—
Lentils	1	—
Liver and bacon cakes	1	—
Lard and cooking fat	20	—
Liquid fruit pectin	1	—
Lemonade powder and crystals	6	—
Milk loaf	5	—
Margarine	45	—
Meat extract	4	—
Mustard	19	—
Macaroni	7	—
Mint in vinegar	7	—
Mint jelly	1	—
Mixed spice	3	—
Mix-a-shake	1	—
Milk flavouring	1	—
Marzipan and almond paste	26	—
Mash potato powder	1	—
Meat products	15	—
Mixed herbs	5	—
Nutmeg	5	—
Nuts	4	—
Oranges	6	—
Onion powder and salt	2	—
Preserves	83	—
Puff pastry	6	—
Potato crisps	11	—
Peanut butter	3	—
Pepper	18	—
Potatoes	27	—
Pickled walnuts	1	—
Parsley sauce	1	—
Pickling spice	1	—
Pease pudding	1	—
Pickles and sauces	49	—
Puffed wheat	1	—
Raspberries (bottled)	1	—
Rice	19	—

Nature of Sample	*Total Examined*	*Number adulterated or otherwise irregular*
Rolled oats	1	—
Rum butter	2	—
Ravioli	1	—
Semolina	8	—
Salad cream and mayonnaise	20	—
Sweets	37	—
Soft drinks	83	—
Sage	2	—
Salt	24	—
Stuffing	25	—
Sausages	47	—
Sugar and icing sugar	41	—
Spirits	76	—
Suet	16	—
Sugar cane and molasses	1	—
Spice mixed	7	—
Sugar crystals	1	—
Sweet corn	1	—
Soda water tablets	1	—
Soft drink tablets	1	—
Scotch eggs	1	—
Smoked mussels	1	—
Sauerkraut	1	—
Salted peanuts	1	—
Tea	33	—
Tomato purée	3	—
Tomato juice	14	—
Tapioca	3	—
Vinegar, malt and non-brewed condiment	48	3
Vegetarian jelly powder	1	—
Vichy water tablets	1	—
Vanilla sugar	1	—
Vikelp mineral tablets	1	—
Yoghourt	1	—
White fat	1	—
Wine	1	—
Yeast	2	—
	3,352	63

Drugs

Asthma tablets	4	—
Almond oil	4	—
Ammoniated quinine and cinnamon	1	—
Ammoniated tincture of quinine	2	—
Ascorbic acid tablets	3	—
Acriflavine cream	1	—
Anadin tablets	5	—
Antiseptic cream	2	—
Antiseptic healing emulsion	1	—
Antiseptic emulsion syrup	1	—
A.P.C. tablets	2	—
Aspirin tablets	5	—
Anti-smoking tablets	1	—
Armstrong's liquid	1	—
Antacid tablets	5	—
Anti-odour tablets	1	—
Bicarbonate of soda	11	—
Bronchial elixir	1	—
Boric acid powder	4	—
Boracic acid crystals	12	—

Nature of Sample	Total Examined	Number adulterated or otherwise irregular
Boracic ointment	5	—
Bone and nerve liniment	1	—
Bubble bath	1	—
Baby dusting powder	1	—
Back and kidney pills	2	—
Baby or nursery cream	1	—
Bisurated magnesia tablets	1	—
Bismuthated lozenges and powder	2	—
Borax	4	—
Bronchial mixture	3	—
Bronchial balsam	1	—
Borax and honey	1	—
Bismuth lozenges and tablets	2	—
Blackcurrant health drink	3	—
Balsam of linseed horehound and honey	1	—
Calcium lactate tablets	2	—
Children's cough syrup and mixture	2	—
Concentrated liver tablets	1	—
Children's aspirin	2	—
Chlorodyne	4	—
Castor oil	8	—
Codeine tablets	7	—
Chilblain liniment	1	—
Chilblain tablets and cream	2	—
Cascara sagrada tablets	1	—
Compressed tablets of ammoniated quinine	1	—
Camphorated oil	3	—
Colourless iodine	3	—
Corn salve	1	—
C.T. pyrin for colds	1	—
Chlorophyll tablets	1	—
Compound liquorice powder	3	—
Cold and influenza mixture	1	—
Children's malted tonic	1	—
Calamine lotion	1	—
Cough candy	1	—
Catarrh cough syrup and pastilles	3	—
Chest vapour rub	1	—
Cough balsam	1	—
Chest and lung mixture	1	—
Diabetic tomato cocktail	1	—
Diabetic's sugarless pastilles	1	—
Diabetic's plain chocolate	2	—
Diabetic lemon squash	1	—
Ephedrine tablets	3	—
Ephedrine hydrochloride tablets	1	—
Embrocation	3	—
Epsom salts tablets	1	—
Eye drops	1	—
Eye lotion tablets	1	—
Emulsion of pure cod liver oil	1	—
Ear drops	3	—
Flowers of sulphur	4	—
Friars balsam	10	—
Fruit candies laxative	1	—
Galibyl tablets	1	—
Gastric ulcer tablets	1	—
Glycerin, lemon and honey	7	—
Glycerin and thymol pastilles	1	—
Glycerin of thymol	3	—
Glycerin	10	—
Glycerin of borax	2	—
Glycerin lemon and ipecacuanha	1	—

Nature of sample	*Total examined*	*Number adulterated or otherwise irregular*
Glucose lozenges and tablets	6	—
Granulated aspic jelly	1	—
Glaubers salts	7	—
Glycerine suppositories	1	—
Hydrogen peroxide	12	—
Healing tablets	1	—
Halibut liver oil capsules	6	—
Health and liver salts	7	—
High protein flour	1	—
Head and stomach pills	2	—
Horlicks tablets	1	—
Influenza mixture	1	—
Indian Brandee	1	—
Insect repellant cream	2	—
Insect exterminating crayon	1	—
Iodised throat lozenges	1	—
Karsote lozenges	1	—
Kaolin powder and poultice	4	—
Liquid shampoo	1	—
Laxative chocolate	1	—
Linseed and liquorice lozenges	3	—
Linctus of codeine	9	—
Liquid paraffin	5	—
Liquid inhalant	2	—
Liquid corn remover	1	—
Linseed, liquorice and chlorodyne lozenges	2	—
Liniment	2	—
Medicated shampoo	1	—
Medicinal charcoal biscuits	4	—
Minto chocolate flavour	1	—
Malt with cod liver oil	1	—
Milk of magnesia tablets	2	—
Magnesia ovals	1	—
"Medicated Sox"	1	—
Nerve tonic tablets and liquid	3	—
Nicotinic acid tablets	1	—
Olive oil	13	—
Oil of peppermint	1	—
Orange jam special fruit product	1	—
Oil of cloves	3	—
Oil of citronella	1	—
Oil of eucalyptus	8	—
Oil of juniper	1	—
Pineapple juice with vitamin C	1	—
Parrish's food	4	—
Pile tablets	1	—
Phenacetin tablets	2	—
Potassium chlorate tablets	5	—
Potassium bromide tablets	8	—
Pep tablets	1	—
Phosferine tonic liquid	1	—
Pastilles for mouth ulcers	1	—
Preludin	1	—
Quinine and cinnamon in orange	1	—
Quenchers sweets	1	—
Rheumatic balm	1	—
Raspberry vinegar	2	—
Sweetening tablets	1	—
Slimming tablets	3	—
Solution of peppermint oil	2	—
Sulphur and treacle with dandelion and Sarsaparilla	1	—
Scalp cleanser	1	—
Syrup of hyphosphites	2	—

Nature of Sample	*Total Examined*	*Number adulterated or otherwise irregular*
Sulphur tablets	3	—
Sulphur ointment	7	—
Sulphur and yeast tablets	1	—
Saccharine tablets	24	—
Soda mint tablets	19	—
Starch reduced biscuits	1	—
Suppositories	2	—
Soothing powders	6	—
Spirit of sal volatile	16	5
Saccharin sodium	1	—
Skin and cold cream	5	—
Seidlitz powder	12	—
Syrup of camphor	1	—
Tincture of Iodine	24	5
Tincture of arnica	1	—
Travel sickness tablets	5	—
Tonic with vitamin	1	—
Toothache tincture	1	—
Tartaric acid	7	—
Vitamin B tablets	3	—
Vitamin yeast tablets	2	—
Varicose ointment	1	—
Vapour rub	1	—
Vital energy tablets	1	—
Vegetable concentrate	1	—
Veganin tablets	1	—
Voice, throat and chest pastilles	2	—
Wart solvent	4	—
Worm syrup mixture chocolate cake	7	—
Worm syrup	1	—
Witch hazel distilled	4	—
White precipitate ointment	5	—
Wasp sting cream	1	—
Yeast tablets	6	—
Zinc ointment	10	—
Sam-buk ointment	1	—
Zinc and castor oil ointment	3	—
Total of Drugs	565	10
Total of Foods and Milk	3,352	63
Total	3,917	73

Table 5—Percentage Adulteration Over 6 Years (Bristol Only)

	1953	1954	1955	1956	1957	1958
Total number of samples	2,750	2,750	3,179	3,012	4,868	3,917
Milks per cent adulterated	4·67	8·43	5·52	8·48	6·0	5·64
Foods per cent adulterated	0·89	0·36	0·35	0·36	0·33	0·34
Drugs per cent adulterated	1·18	2·42	0·77	2·99	1·2	1·8
Total per cent adulterated	1·64	2·65	1·26	2·81	2·0	1·87

Table 6—Average Composition of Genuine Milks for 1958

Bristol

Month	*No. of samples*	*Fat % average*	*Non-fatty solids % average*
January	123	4·25	8·98
February	67	3·95	8·96
March	84	4·18	8·97
April	40	3·94	8·83
May	73	3·92	8·86
June	23	3.89	8·94
July	52	4·28	8·88
August	39	4·00	8·88
September	62	4·08	8·94
October	136	4·06	9·03
November	128	4·31	8·91
December	93	4·35	8·98
	920	4·10	8·93

Gloucester County

Month	*No. of samples*	*Fat % average*	*Non-fatty solids % average*
January	78	3·91	8·81
February	33	3·88	8·76
March	89	3·76	8·78
April	35	3·53	8·61
May	84	3·68	8·78
June	46	3·77	8·75
July	45	4·02	8·83
August	39	3·70	8·93
September	59	3·85	8·89
October	47	3·97	8·67
November	67	4·13	8·70
December	63	4·03	8·76
	685	3·85	8·77

Gloucester City

Month	*No. of samples*	*Fat % average*	*Non-fatty solids % average*
*January	3	3·98	8·82
*September	18	3·56	8·85
*December	27	3·81	8·59
	48	3·78	8·75

* Milks received in these months only.

Table 7—Adulterated Milks and Action Taken

No.		*Commodity*		*Formal or Informal*	*Nature of Deficiency or Irregularity*	*Action Taken*
V.	38	Milk		Informal	11·8% added water	Same producer. Formal repeat samples were satisfactory
	39	,,		,,	11·8% ,, ,,	
	40	,,		,,	8·2% ,, ,,	
	64	,,		Formal	8·3% deficient in fat	Producer interviewed and advised to re-arrange milking methods
	87	,,	(Channel Islands)	Informal	8·7% ,, ,, ,,	Letter to producer and copy of report sent. Formal repeat samples satisfactory in bulk.
	101	,,	(Channel Islands)	,,	15·0% ,, ,, ,,	Letter to producer and copy of reports sent. Repeat samples were satisfactory.
	102	,,	(Channel Islands)	,,	10·0% ,, ,, ,,	
	128	,,		,,	6·7% ,, ,, ,,	Bulk fat V.128—131 was 3·3%. Satisfactory—no action
W.	2	,,		,,	13·5% ,, ,, ,,	Bulk fat W.1—8 was 3·34% Satisfactory—no action
	6	,,		,,	13·3% ,, ,, ,,	
Z.	7	,,	(Channel Islands)	,,	10·0% ,, ,, ,,	Producer interviewed and copy report given. Repeat samples Z.16 and 17 satisfactory
	19	,,	(Channel Islands)	,,	12·5% ,, ,, ,,	Again interviewed and warned re legal position. Further sample Z.25 satisfactory
V.	182	,,	(Channel Islands)	,,	5·0% ,, ,, ,,	Repeat sample unobtainable
	190	,,	(Channel Islands)	,,	3·5% added water	Copy certificate and letter to dairy
V.	203	,,	(Channel Islands)	,,	5·1% deficient in fat	Copy of report with Town Clerk
	207	,,	(Channel Islands)	Formal	20·0% ,, ,, ,,	
	211	,,	(Channel Islands)	Informal	5·0% ,, ,, ,,	
Z.	60	,,	(Channel Islands)	,,	8·8% ,, ,, ,,	Repeat samples satisfactory
V.	214	,,	(Channel Islands)	,,	1·8% added water	Repeat samples taken were satisfactory.
V.	263	,,		,,	6·7% deficient in fat	Copy of Analyst's report and letter sent to dairyman
V.	267	,,		Formal	13·3% ,, ,, ,,	Dairyman was bottling his morning and evening consignments separately. Whole consignment sampled and dairyman advised to bottle his milk from the total bulk supplies. Letter and copy of Analyst's Certs. sent
V.	271	,,	(Channel Islands)	Informal	25·0% ,, ,, ,,	
X.	99	,,	(Channel Islands)	,,	7·5% ,, ,, ,,	Copies of Analyst's reports and letter to dairyman
X.	100	,,	(Channel Islands)	,,	15·0% ,, ,, ,,	
X.	101	,,	(Channel Islands)	,,	16·2% ,, ,, ,,	
VD.	362	,,	(Channel Islands)	,,	10·0% ,, ,, ,,	Repeat sample taken—satisfactory
V.	437	,,	(Channel Islands)	,,	3·7% added water	Repeat sample taken—genuine
V.	456	,,		,,	10·6% ,, ,,	Repeat sample taken being V.471
V.	471	,,		Formal	5·9% ,, ,,	Facts reported to Town Clerk

Table 8—Action Taken on Unsatisfactory Reports

No.	*Commodity*	*Formal or Informal*	*Nature of Deficiency or Irregularity*	*Action Taken*
VD. 19	Coffee Beans	Informal	0·44% siliceous matter	Wholesaler interviewed. To make representations to overseas suppliers
ZD. 37	" "	"	0·07% " "	
VD. 32	Italian Apples	"	Lead equivalent to 2·5 p.p.m.	Related samples. No further action. A.P.A. letter 8.2.58 gives relaxation to 4 p.p.m. lead on washed fruit
ZD. 98	" "	"	Arsenic 3 p.p.m. Lead 8 p.p.m.	
ZD. 108	" "	"	Arsenic 2 p.p.m.	
VD. 77	Nutmeg	"	Slight infestation	School Kitchen sample—stock disposed of
VD. 122	Pork Sausages	"	Only 57% meat. Poor quality	No standard. No action
WD. 34	Jam and Cream Sponge	"	Not more than 5% (1/20) of total fat in the filling was butterfat	Manufacturer interviewed and warned
WD. 64	" " "	"		Offending description amended
WD. 96	Parsley and Thyme Stuffing	"	Infested	School Kitchen sample—Packeted stock to be examined before use
WD. 142	Sardines, Canned	"	Excess lead at 10 p.p.m.	Repeat samples not available
XD. 48	Pork and Beef Sausage	"	250 p.p.m. Preservative (SO_2)	Preservative content declared on notice exhibited by retailer
XD. 173	Ginger Cordial	"	Comment made on use of word "Cordial"	No action
YD. 64	Varicose Ointment	"	Comment on labelling	After correspondence between Public Analyst and Manufacturers latter agreed to amend label.
ZD. 4	Baking Powder	"	Poor qulity. Only 7·6% available CO_2	Repeat sample was satisfactory
VD. 155	Cream Doughnuts	"	Contained 55% fat of which not more than 3% was butterfat	Verbal warning given and 'notice' subsequently exhibited
XD. 314	Butter	Formal	Contained 16·2% water	Wholesaler advised: butter used for re-blending
315	"	"	" 16·05% "	
YD. 237	Spirit of Sal Volatile	Informal	76% deficient in ammonia	Old stocks—Retailers advised and stocks disposed of
YD. 238	" " "	"	77% " " "	
YD. 239	" " "	"	Devoid of ammonia, and 16·6% deficient in ammonium carbonate	
YD. 260	Tincture of Iodine	"	Slight excess of potassium iodide	Repeat samples taken
YD. 261	" "	"	" " " "	" " "
YD. 262	" "	"	Excess of iodine	" " "
YD. 266	" "	"	Excess of iodine and potassium iodide	" " "
YD. 324	" "	"	Excess of iodine	Manufacturers appear to have anticipated new standards (B.P.)—no action
VD. 169	Vinegar	"	Infested with vinegar eels	Retailer advised and barrel returned to Manufacture
VD. 270	Salmon	"	Offensive smell	Genuine salmon, possibly of Russian or Canadian origin—no action
XD. 316	Ice Lolly	"	Linked with complaint of illness	No toxic metals found—no action

Table 8—continued.

No.	*Commodity*	*Formal or Informal*	*Nature of Deficiency or Irregularity*	*Action Taken*
YD.169	Health Liver Salt	,,	Badly compounded. Sodium bicarbonate and tartaric acid deficient and sucrose in excess	Copy of report and letter sent to Manufacturer
YD.208	Travel Sickness Tablets	,,	Deficient in sucrose as compared with declared amount	Copy report and letter sent to Manufacturers
YD.242	Worm Syrup	,,	Low in piperazine as compared with declared content	Repeat sample taken
YD.273	Antiseptic Healing Emulsion	,,	Deficient in solids and in ether extractable matter	,, ,, ,,
ZD.223	Cream Cheese	,,	Contained only 28% of milk fat with 47% water. Hardly warrants the description "Cream" cheese	No standard—no action
VD.389	Malt Vinegar	Formal	Found to be a non-brewed condiment	Warning letter to retailer
WD.316	Malt Vinegar	,,	52·5% deficient in acetic acid	Letter to retailer. Supplier is to be consulted.
XD.379	Malt Vinegar	,,	Found to be a non-brewed condiment	Warning letter to retailer
YD.332	Fruit Preserving Tablets	Informal	Sulphur dioxide declared 50% found to be 18·8%	Retailer interviewed. Old stock which is to be confiscated
YD.439	Fruit Preserving Tablets	,,	Sulphur dioxide declared 53%, found to be 16·3%	Retailer interviewed. Old stock, which is to be confiscated
XD.374	American Buttered Chocolate	,,	Only 3% butterfat in the toffee portion	Repeat samples taken. Satisfactory
YD.356	Seidlitz Powder	,,	Low in tartaric acid	Repeat sample unobtainable
YD.369	Antiseptic Healing Emulsion	,,	Deficient in non-volatile and in petroleum ether extracts	Letter to manufacturer querying method of compounding which is believed to be at fault
YD.461	Glycerin of Borax	,,	Low in borax	Error in manufacturing. Chemist to rectify
YD.470	Sal Volatile	,,	0·85% w/v of ammonia (limits 1·12 to 1·25% w/v)	Repeat sample taken being VD.588
VD.588	Sal Volatile	Formal	18% deficient in ammonia	Stock destroyed
VD.473	Beef Sausages	Informal	Poor quality—only 46% meat	No standard for this commodity but letter sent to manufacturer
VD.526	Canned Tomatoes	,,	Poor quality, tin 230 p.p.m.	No standard for this commodity
VD.547	Raisins	,,	Fermented	Vendor advised
VD.561	Tomato Juice	,,	Poor quality, tin 250 p.p.m.	No standard for this commodity
VD.584	Fish Cakes	,,	,, ,, only 34% fish	,, ,, ,, ,, ,,
VD.590	Buttered Ginger	,,	,, ,, only 3·5% butterfat	,, ,, ,, ,, ,,
WD.454	Pork Sausages	,,	,, ,, only 58% meat	,, ,, ,, ,, ,,
XD.607	Orange and Lemon Slices	,,	Description queried and later Importers agreed to amend descriptive label to "Jelly orange and lemon slices"	Letter to Importers asking for amendment of descriptive label
YD.467	Tartaric Acid	,,	Found to be 94% cream of tartar	Vendor advised

Details of Legal Action Taken

Case	*Legal Action*
Selling a meat pasty containing a nail	Case dismissed.
Snail in pint bottle of milk	Fined £10 and £2 2s. costs.
Cider found to be Creosote	Fined £2 and costs.
Channel Islands' Milk below statutory fat standard . .	Case dismissed.
Mouldy sausage roll	Fined £5 and £3 costs.
Metal in bun	Fined £5 and £3 costs.
Iron wire $\frac{5}{8}$" long in sweet	Fined £5 and £2 2s. costs.

Food and Drug Comment

The foregoing tables indicating adulterated samples, action taken on unsatisfactory articles, and legal action where taken are detailed.

With certain food and drugs some elaboration seems desirable either with respect to existing legislation or to measures yet to be introduced or about which there is some divergence of opinion.

Samples of sausages continued to be criticised for low meat content and the case for standards of meat content for pork and beef sausages was not greatly helped by Ministry pronouncements that it was not possible to determine the meat content with any accuracy. This was at least implied. What was probably intended was that it was difficult, if not at the moment impossible, to determine what meats went into sausage manufacture, especially if such meat was very finely comminuted. Serological and histological tests obviously offer the best chance of resolving these problems, but the Analyst can still estimate the total nitrogen and make an assessment of the total meat content having due regard to the fat. Incidentally if and when new legislation is introduced some limitation of the amount of fat might be considered. In some samples in recent years more than half of the total meat content has been fat. It would not be unreasonable to limit the fat content to not more than half the total meat.

In accordance with the provisions of the Preservative etc. in Food Regulations, sausages can contain sulphur dioxide up to 450 p.p.m. if declared. Several warnings have been issued to local retailers calling attention to the need for notices to be prominently displayed.

The "cream" problem like the poor relation is ever with us. Warnings were issued in two cases concerning Jam and Cream Sponge, and Cream Doughnuts. A "Cream" cheese containing only 28 per cent of fat and 47 per cent water was criticised as hardly warranting the description of "Cream" cheese. In the absence of Standards for cheese products no further action seemed possible. It should be noted in passing that the *recommended* fat and moisture limits for processed cheese and cheese spreads have proved useful guides and furthermore that these types of cheese products do largely comply with the recommendations.

Throughout the year a watch is kept on School Kitchen commodities and the following articles were found to be infested—parsley and thyme stuffing and nutmeg, otherwise stocks held in the kitchens appear to be in a very satisfactory condition.

It is unusual these days to report excess water in butter but two instances occurred where the limit of 16 per cent was exceeded. The wholesaler was advised and the butter was used for re-blending.

Two malt vinegars proved to be entirely non-brewed condiments and warning letters were sent to the retailers. A third malt-vinegar was seriously deficient in acetic acid and the retailer and supplier were both consulted.

Two samples of fruit preserving tablets with declared amounts of sulphur dioxide were found to be seriously deficient in this preservative. In both cases the retailers were interviewed and the stocks which were of some age, were confiscated.

An American buttered chocolate was found to contain only 3 per cent of butter fat in the toffee portion. Repeat samples were satisfactory and lengthy correspondence with the firm concerned failed to produce any explanation of the low butter fat figure other than that about the time of the manufacture of the batch certain staff changes had been made. The exchange of views was very cordial and I have little doubt that these manufacturers do regularly comply with the code of practice relating to butter in confectionery.

A buttered ginger sample was similarly reported for low butter content but if the manufacturers refuse to comply with the Code referred to above then little or nothing can be done.

Some so called orange and lemon slices were criticised in that they were a jelly confection "got up" to look like slices of orange and lemon. This was an imported article and when the description was queried the importers agreed with commendable promptness to amend the label to "Jelly Orange and Lemon Slices".

Several drugs samples were found unsatisfactory including "hardy annuals" such as spirit of sal volatile and tincture of iodine. Five samples of the former were old stock and any remaining bottles were disposed of. Five tinctures of iodine were reported against for excesses of iodine and/or potassium iodine although in one instance the manufacturers appear to have anticipated the new requirements of the 1954 British Pharmacopoeia.

A varicose ointment was criticised for misleading labelling. Indeed some of the figures quoted appear to be without meaning at all including 17 per cent of nothing. A lengthy correspondence with the manufacturers ensued and after several red herrings had been drawn across the tracks, the manufacturers sought our approval of a label which differed little from one we had recommended in our first letter on the subject.

A sample of health liver salts was very badly compounded with serious deficiences of sodium bicarbonate and tartaric acid, and a large excess of sucrose. These discrepancies were slightly comical having regard to a declared list of ingredients quoted to three places of decimals.

A worm syrup was found to be deficient in piperazine, the active constituent. Repeat samples were satisfactory.

Two samples of "antiseptic healing emulsion" were found to be deficient in solids and in other extractable matter as compared with figures to be expected from the label. This brought forth a sad and lengthy story of the emulsion being prepared by some lady assistant, since married, and who could not be traced to explain the method of formula used in compounding, should we say, the felony.

Finally in the drug field we discovered an alleged tartaric acid which was 94 per cent cream of tartar—not in itself perhaps of serious consequence but what if the confusion had been with tartar emetic?

It is of interest to note that 86 samples of cream were examined and all complied with the requirements of the Cream Order. Similarly all of the samples of dried fruit, colourings, flour, fish and meat pastes, gelatine, ice cream, preserves, pickles and sauces, salad cream, soft drinks and spirits satisfied statutory requirements.

Ice lollies contained no significant metallic contamination and samples of marzipan proved acceptable in respect of almond content.

Summary of Milk Analyses

	1st qtr.	*2nd qtr.*	*3rd qtr.*	*4th qtr.*	*Total*
Fat deficient (ordinary milk)	8	1	3	1	13
Added water (ordinary milk)	3	—	1	3	7
Abnormal solids—not fat	8	3	2	7	20
Poor quality. Fat just less than 3·0 per cent	1	—	1	—	2
Channel Island satisfactory	127	44	64	111	346
Channel Island deficient in fat	9	11	9	5	34
Channel Island added water	—	1	1	1	3
Channel Island poor quality, i.e. fat just below 4 per cent	—	4	—	1	5
Total milks	294	149	166	266	875
Formal milks	28	39	14	15	96
Separated milk	1	—	—	—	1

Ordinary milk by the Sale of Milk Regulations 1939 is required to contain not less than 3·0 per cent of milk fat and not less than 8·5 per cent of solids-not-fat. Of 529 ordinary milks, seven contained added water, thirteen were deficient in fat and twenty showed abnormal solids-not-fat but no watering.

Channel Island milk is required to contain not less than 4 per cent of milk fat. One would generally expect a reasonably good solids-not-fat, preferably not less than 9·0 per cent, but I regret to report that quite a number of the 346 Channel Island Milks would not have reached this level and indeed some are hard pressed to satisfy the 8·5 per cent solids-not-fat requirement. This coupled with 34 failures (10 per cent of samples taken) to reach the required fat figure is a most unsatisfactory state of affairs for alleged quality milk.

PART II. FERTILISERS AND FEEDING STUFFS ACT

Table 9—Summary of Samples Examined

	Formal	*Informal*	*Irregular*
Bristol—			
Feeding stuffs	17	19	12
Fertilisers	28	85	42
Avonmouth—			
Feeding stuffs	102	—	9
	147	104	63

Table 10

Serial No. F. & F.	Article	Nature of Irregularity	Observations
1	Layers Mash	Fibre above statutory statement limits	Copy of report and letter sent to retailer
4	Bone Meal	Nitrogen above statutory statement limits	Copy of report and letter sent to retailer and letter to Authority in Manufacturers area
7	Sulphate of Potash	Incorrect declaration	Copy of report and letter sent to retailer
8	Layers Mash	No statutory statement supplied	Warning letter and copy of report sent to retailer with extract of Regulations
10	H.M.C. Calf Starter Food	Fibre above statutory statement limits	Copy of report and letter sent to Manufacturer
12	Garden Fertiliser	Insoluble P_2O_5 high	Copy of report to Manufacturer
13	No. 1 Fertiliser	Insoluble P_2O_5 high	" " " " "
24	John Innes Base Fertiliser	Required declaration of Insol. P_2O_5	Copy of report and letter sent to retailer
27	Sulphate of Ammonia	No statutory statement supplied	Copy of report, letter and extract of regulations sent to retailer
28	" " "	Acidity not correctly expressed	Letter to Distributors
29	Bone Meal	P_2O_5 low	Copy of report and letter sent to retailer
30	" "	Nitrogen and P_2O_5 low	" " " " " " " "
31	Grassland Fertiliser	Some reversion of phosphate	Copy of report to Manufacturers
33	X98C Meat and Bone Meal	Oil by official mcthod rather low	" " " " "
34	X79C Meat Meal	Oil by official method rather low	" " " " "
40	Bone Meal	Nitrogen outside statutory limits of variation	Copy of report to Retailer
41	Growmore Fertiliser	Insoluble phosphate outside statutory limits of variation	Not to prejudice of the purchaser
42	Bone Meal	Small excess of insoluble phosphate	" " " " " "
44	" "	Small excess of insoluble phosphate	" " " " " "
48	" "	Insoluble phosphate outside statutory limits of variation	Copy of report to Retailer
52	" "	Nitrogen outside statutory limits of variation	" " " " "
54	Blood and Bone Meal	Reversion of soluble to insoluble phosphate	" " " " " and letter
57	Dried Blood	Nitrogen outside statutory limits of variation	Not to prejudice of the purchaser
58	Dried Blood	Nitrogen outside statutory limits of variation	Copy of report and letter to Retailer
60	Growmore Fertiliser	Potash and insoluble phosphate outside limits of variation	Not to prejudice of the purchaser
61	John Innes Base Fertiliser	Insoluble phosphate outside limits of variation	Copy report sent to Retailer. Not to prejudice of the purchaser
63	Bone Meal	Nitrogen slightly high; phosphate slightly low. Both outside limits of variation	Copy report and letter sent to Manufacturers

Table 10—continued.

Serial No. F. & F.	*Article*	*Nature of Irregularity*	*Observations*
64	"Seamus" General Mixture	Nitrogen, soluble and insoluble phosphates, all in excess of statutory limits	Copy of report to Manufacturer
66	Bone Meal	Slightly high phosphate	Not to prejudice of the purchaser
67	Growmore Fertiliser	High insoluble phosphate	” ” ” ” ” ”
76	Layers Mash	Of poor quality. No statutory statement supplied	Letter to retailer
80	Stimulawn	Low nitrogen and low insoluble phosphate	Copy of report to Retailer. Letter to Manufacturer
83	Fertiliser Squares	Low nitrogen	Letter and copy of report to Manufacturer
84	Layers Mash	No statutory statement supplied	Letter sent to retailer
86	Plant Food	Nitrogen, sol. and insol. phosphate and potash, all in excess of statutory limits	Letter and copy of report sent to Manufacturer
87	Growers Mash	Low protein	Copy of report sent to retailer
89	Bone Meal	Phosphate high	Not to prejudice of the purchaser
90	Clays Fertiliser	Insoluble phosphate slightly high	” ” ” ” ” ”
91	"Fertosan". Organically based	Potash slightly low	” ” ” ” ” ”
92	Joncross Organic Fertiliser	High phosphate and potash	” ” ” ” ” ”
93	Bone Meal	Slightly high phosphate	” ” ” ” ” ”
95	Sulphate of Potash	Declaration low	” ” ” ” ” ”
96	"Stimulawn"	Nitrogen and insoluble phosphate low	Letter and copy of report sent to the County Land Agent, Bedfordshire
102	Steamed Bone Meal	Phosphate high	Not to prejudice of the purchaser
107	Layers Mash	No statutory statement supplied	Letter and leaflet to vendor re statutory statement
112	Green Fingers Plantoids	Nitrogen outside statutory limits of variation	Letter and copy of report to Manufacturer
120	Seamus General Mixture	Insoluble phosphate low. Soluble phosphate high	Copy of report to Vendor
122	Layers Pellets	No statutory statement supplied	Letter and leaflet to vendor re statutory statement together with copy of report
134	Layers Mash	Oil low. Product infested with flour moth larvae	Letter and copy of reports to Vendor. Stocks to be destroyed
134	Laying Pellets	Infested with flour moth	
136	Steamed Bone Flour	Probably a Bone Meal and not a steamed product	Vendor requested to amend statutory statement to read "Bone Meal"
137	Rose Fertiliser	Insoluble phosphate high	Not prejudical to purchaser
138	Autumn Turf Dressing	Sol. and insol. phosphates low and outside statutory limits of variation	Letter and copy of report to vendor
142	Potassic Blood and Bone	Some slight reversion of phosphates	Copy of report to Manufacturer
149	Green Finger Plantoids	Insoluble phosphates and nitrogen outside statutory limits of variation	Copy of report to Manufacturer. Letter to Inspector of Weights and Measures, Maidstone, Kent
147	Bone Meal	Slight excess of nitrogen	Not to prejudice of the purchaser
113	Maxicrop Liquid Scaweed	Not within scope of Fertilisers and Feeding Stuffs Act, 1926.	

PART III—WATER AND SEWAGE ANALYSES

Table 11—Bristol

City water from tap at Canynge Hall	26
City water from pumping station, Knowle	12
Downend and Frenchay Hospital (West Glo'ster supply)	23
Wells and springs	3
Seepage, sewage effluents and streams	26
Ships in port	6
City mains supply (private houses, etc.)	2
Council House (heating system)	30
Swimming bath waters	126
Miscellaneous	5
	259

Table 12

	Bristol supply		*West Gloucester Supply*
	Tap at Canynge Hall	*Tap at Jubilee Rd., Knowle*	*Tap at Downend and Frenchay*
Number of samples	26	12	23
		Parts per million	
Total solids	256	138	339
Mineral matter	224	115	320
Loss on ignition	32	23	19
Chlorine as chlorides	12	13	34
Nitrate nitrogen	0·90	0·89	0·52
Free ammonia	0·06	0·08	0·01
Albuminoid ammonia	0·04	0·10	0·02
Total hardness	220	90	222
Permanent hardness	48	42	35
pH	7·8	8·3	7·6

Two well waters were polluted. Three samples from Frenchay Hospital (West Glo'ster mains) had a rather high iron content. Highest amount of dissolved oxygen found in the Council House waters was 0·60 p.p.m. The sulphite figure ranged from 2·4 p.p.m. to 34·6 p.p.m.

Table 13—Gloucester

Wells	22
Mains, public and private supplies	45
Sewage effluents, streams, lakes, etc.	28
Swimming baths	15
Miscellaneous	3
	113

Sixty-seven samples of drinking water were submitted. Forty-two were satisfactory, the remainder showed evidence of contamination or pollution as the result of chemical or bacteriological tests.

Considerable interest has been aroused by reports of methaemoglobinaemia in infants caused by drinking water with high nitrate content. A most interesting and valuable review of the subject was presented to the Association of Public Analysts by Dr. E. C. Wood in October 1956, and the following notes are derived from that paper. Comly (1945), appears to be the first to mention the subject in reporting two cases in the United States, and further reports followed from both Canada and the United States. In this country Ewing and Mayon-White reported two cases. Dr. S. Greenburgh (Cambridge) examined the water supply in one case and found 95 p.p.m. of nitrate nitrogen. The baby involved was ill, but recovered. In the second case a baby died. In this latter instance, Dr. Wood found 200 p.p.m. of nitrate in the water used for the infant's feed. I now quote extracts from Dr. Wood's paper in which he discussed the cause, origin and distribution of nitrate in well waters, and gave some valuable information on safety levels and administrative action.

Cause of "Nitrate Poisoning"

Nitrate itself is harmless, in the amounts we are now considering, when absorbed as such into the bloodstream or when injected intravenously. It is reduced to nitrite by organisms such as *E.Coli*, which inhabit digestive tract in the adult by the acidity of the gastric juice. Very young babies, however, have a physiological achlorhydria, and *E.Coli* can be cultivated from their stomach washings, which are almost neutral. In consequence, nitrate taken by mouth is reduced to nitrite and absorbed as such from the stomach and duodenum. This reacts with haemoglobin (Hb) to form methaemoglobin (a true oxide of Hb) which is very stable and will not pick up oxygen from the lungs and transport it elsewhere, as is the proper function of the Hb. The baby suffers from oxygen starvation (anoxia), and this accounts for the blue colour of the face.

The high intake of fluid relative to body-weight also probably plays a part, in my opinion. A baby under 15 lb. weight requires 2½ fluid ounces of water per lb. of body-wt. per day. This is much higher in proportion than the fluid intake of the adult; in the same proportion, a 12 stone man would be consuming 21 pints a day. Any toxic substance in the water used will thus be more serious for the baby than for the adult, because he will ingest proportionately more of it and will also have less resistance. The intake of water, as such, will clearly be highest for a baby reared on dried milk and water; rather less when evaporated milk and water is used, and least when liquid milk and water mixtures are made. It is noteworthy that all cases within my experience have been in babies fed with dried milk mixtures.

The toxic effect of the nitrate is cumulative, as the methaemoglobin is stable, and the amount in the blood builds up to a dangerous level. The remedy is an intravenous injection of methylene blue, which reduces it to Hb once again. The effect is dramatic; a deeply cyanosed baby, gasping for oxygen, regains its natural colour and breathes naturally within a matter of minutes.

Origin of Nitrate in Water

Almost always, the nitrate content of water is derived from oxidised organic—usually animal—matter. It may be because of long-continued oxidation of bodies long since buried in nearby ground—one well containing nearly 200 p.p.m. of nitrate known to me is sited about 50 yards downhill from a disused cemetery—but it may also arise from sewage, etc., at a distance filtering through soil of a light, sandy, aerated type, which can then act as an efficient percolating filter. The Rivers Pollution Commission found that when London sewage percolated through 5 ft. of gravelly soil, 97 per cent of the total nitrogen present was converted into nitrate. (Oxidising bacteria are present in the soil in large numbers and in such conditions in heavy soils not admitting air, reducing bacteria are dominant and nitrogen compounds finish up as ammonia). Nitrates used to be regarded as harmless in themselves; one writer speaks of them as the ashes of burnt-out organic matter—a sign that pollution had once passed that way.

Distribution of Nitrate Content in Well Waters

The following table summarises the available information, and includes my own (unpublished) data for East Suffolk. All the wells referred to are dug, technically "shallow", wells and not "deep" bores.

	Nitrate Nitrogen, p.p.m.		
	Over 20	*Over 50*	
Robertson and Draycott (1949), 2,000 wells, Canada	25·5%	18·8%	5·3% over 300
Hoather (1951), 600 wells, Essex	21·7%	4·5%	0·5% over 100
Wood (1952/3), 1,311 wells, E. Suffolk	41·0%	13·1%	2·3% over 100

Hoather says that of the waters examined by him containing over 20 p.p.m., 49 per cent were bacteriologically satisfactory; of those containing over 50 p.p.m., 63 per cent; and over 100 p.p.m., all! I have examined bacteriologically only a small proportion of those which I have examined for nitrates, but I also found that many waters, having a high nitrate content, may be quite satisfactory in other respects. Incidentally, this provides a strong argument for making a chemical as well as a bacteriological examination of all waters intended for drinking purposes.

The Criterion of Safety

It is not easy to decide how much nitrate in water can be tolerated, *i.e.*, at what point one certifies the water as unfit for drinking purposes. If the high nitrate content is accompanied by evidence, chemical or bacteriological, of active pollution, the point does not arise; but when the water is found to be satisfactory except for its nitrate content, one has to be careful. During (1949), in the U.S., suggests that water containing 20 p.p.m. or more of nitrate nitrogen is unsafe for infant feeding. Bosch *et al.*, (1950) says that no case of illness has occurred under 30 p.p.m., but that water should be condemned when it contains more than 10 p.p.m. as a margin of safety. In East Anglia, this is quite unrealistic; it would put out of action over one-third of all the wells, including deep bores into the chalk. (The water in the chalk stratum 100 feet or more beneath the City of Norwich, of excellent organic quality and bacteriologically beyond reproach, contains from 30 to 40 p.p.m. of nitrate nitrogen). The analyst's certificate may be used as evidence against him years afterwards, and even if there is no baby in the house now, there may be in a few years' time. There are many other considerations. After taking all factors into account, I decided—and it has been my practice for some time—to certify as fit for drinking purposes any otherwise satisfactory water containing less than 20 p.p.m. of nitrate nitrogen. From 20 to 39 p.p.m., I draw attention to it and say that its presence renders the use of the water for infant feeding undesirable; from 40 to 79 p.p.m., I describe it as unsafe for this purpose; and at 80 p.p.m. or over, as dangerous. In each case, I add that the use of the water for older children and adults is not attended by risk to health. (The "boundary lines" at 20, 40 and 80 (not 60) are based on the almost universal logarithmic relation between dose and response). But there is an arbitrary and personal set of criteria, and some official pronouncement on the point would be welcome.

Administrative Action

By the beginning of 1951, I had had sufficient experience of "high nitrate" well waters and their effects on infants to realise that preventive measures ought to be put into operation. I explained the position to the Norfolk County M.O.H., and he saw the point at once. A meeting of local M.O.H's was called which was addressed by two doctors who had treated affected babies and by myself. As a result, a scheme was arranged in Norfolk, whereby when a pregnancy is notified, an enquiry is made about the source of the water that would be used if the baby had to be artificially fed. If it was to be from a well, a sample of the water would be taken and examined by me for nitrate only (if, that is, there is no reason to suspect its potability from any other point of view). If the nitrate content is found to be over 20 p.p.m., there is time to find an alternative supply before it is needed. If necessary, arrangements can be made for the District Nurse to take along 2 Winchester Quarts of good water every 5 days or so. It is needed only for a few months in normal cases.

In East Suffolk, a similar arrangement is made, except that the Rural District Councils make the enquiries and take the samples. Seeing that, as shown above, 2·3 per cent of the samples I received from them in 1952/3 contained 100 p.p.m. or more of nitrate nitrogen, it is a reasonable supposition that over the last five years, some babies have been saved from serious illness, at least, by these simple and inexpensive arrangements.

The following nitrogen as nitrate results were obtained for well waters, submitted from Authorities in the Gloucester County.

GC	37	Well	Minsterworth	38 p.p.m.
,,	48	,,	Marshfield	36 ,,
,,	86	,,	Apperley	32 ,,
,,	88	,,	Wick	16 ,,
,,	100	,,	Longwell Green	35 ,,
,,	103	,,	Winterbourne	13 ,,
,,	104	,,	Thornbury	28 ,,
,,	111	,,	Wick	47 ,,

Two waters only contained any significant amount of fluoride GC 91—0·18 p.p.m. and GC 92—0·13 p.p.m.

Metallic contamination of waters was generally of a low order but the total iron figures of p.p.m. 0·15 to 0·40 p.p.m. were noted in six waters, whilst copper of the order 0·15 to 0·90 p.p.m. was found in five waters (two of which contained iron also); lead amounting to 0·08 and 0·40 p.p.m. was found in two of the waters which had significant copper contents; whilst two samples contained 0·10 and 0·33 p.p.m. of zinc.

As might be expected there were no instances of high nitrate in the samples of the City's water supplies. The fluoride content of public supplies were:

No. 24	Downend Homes (West Gloucester Water Company)	Nil
No. 25	Frenchay Hospital (West Gloucester Water Company	0·18 p.p.m.
No. 26	Jubilee Road (Bristol Water Works)	0·11 p.p.m.
No. 27	Canynge Hall (Bristol Water Works)	Nil

The only noteworthy metallic contamination concerned copper.

No. 30	Ship in port	Copper	0·10 p.p.m.
No. 79	(Drinking fountain)	Copper	0·20 p.p.m.
No. 80	(In a factory canteen)	Copper	0·66 p.p.m.

Chlorination Report

General

After a fairly dry spring, 1958 lapsed into the all too familiar "summer". Consequently there were no major odour problems with the River Avon.

A new "Master" chlorinator was installed at the Ashton Bridge Station, having a capacity of 250 lb. chlorine per hour—ten times the rate of one of the original machines. This high capacity plant, coupled with properly installed plastic distribution pipes, has enabled a great reduction in sewer treatment and a considerable overall reduction in chlorine consumption.

The great merit of this river treatment lies in the ability to halt the septic tendency of stale sewage in the river. Previously, sewers had to receive heavy treatment for long periods, against the possibility of fine weather a week later when the treated sewage might still be in the river.

The above development has enabled a reduction from 16 active sewer treatment stations down to 8 in regular operation. Of the remainder, 4 stations may still be of value in a really warm season. The last four have already been dismantled.

A total of 70 drums (about 60 tons) of liquid chlorine was used, half of which was applied to the river.

Emergency Work

(1) *Southmead*—The main sewer at Southmead became blocked due to malicious damage causing almost the total flow to pass into the River Trym. Chlorination and settlement was set up at very short notice and was in operation for about 4 days. Practically all the sewage solids (about 15 tons) were collected, and thus gross pollution of the stream through Westbury and Canford was avoided. The polythene apparatus used was immune to missiles, and this merit gave great satisfaction to the operators but was most annoying to the Southmead "marksman".

(2) *Ridgeway Road, Fishponds*—For three weeks in October and November the sewage was diverted into the Coombe Brook for essential repairs. During this time Chlorine was applied, and a settlement tank formed by damming the stream. The sludge was drawn off by gully emptier as necessary.

(3) *Stockwood Tip*—Here a similar process is in operation on Scotland Brook on the advice of the Avon River Board. This is a longer term treatment as pollution may continue for some years. A smaller scale chlorinator is in use having an average consumption of 10 to 15 lb. chlorine per day. Alum is also applied to assist in settlement of the polluting solids and in clarifying the stream.

The above type of treatment has been used with increasing success during recent years, and is now of proven value for protection of amenity and public health during emergency discharges to open streams.

Other Services

During protracted sewer cleaning operations, the chlorination plant at Marsh Lane has been in operation. Reasonable control of the atmosphere in the sewer was obtained, and men were able to work inside for longer hours than previously. The chlorination plant was run by a trained ambulance man, and resuscitation equipment was at hand all the time men were underground.

Royal Show

Two chlorination stations were set up to deal with the expected pollution of watercourses. Only a very small flow came away and it is still something of a mystery as to where the water went!

Pavements

Some of the paving slabs in Queens Road were found to be of a type which became very slippery. Experimentally these slabs were treated with acid under carefully controlled conditions. The work appears to have been successful and the expense of relaying has been averted.

Paddling Pools

The pools in parks have been chlorinated and maintained in safe condition as previously.

Trade Waste

Treatment of trade waste has increased and there is now a considerable amount of oil reclaimed.

PART IV. RAG FLOCK ACT

Forty-eight samples taken informally were examined as prescribed by the 1913 Regulations together with microscopic examinations of the type of fibre involved. This latter is essential in order to determine whether or not a chloride limit test applies. Where the chloride standard was applicable all samples complied.

The situation in this laboratory with respect to the Regulations made under the Rag Flock and Other Filling Materials Regulations 1957, is much the same as in previous years. Two matters require attention if Public Analysts are to operate the legislation satisfactorily. The list of prescribed analysts with its trade bias must be re-examined and the fees for the extensive and triplicated analysis will have to be revised. This laboratory would also be faced with the at present insuperable problem of finding accommodation for bulky apparatus and attendant preparation rooms. Within Canynge Hall, such accommodation does not exist.

PART V. PHARMACY AND POISONS ACT

The thirty-one articles submitted under this Act, were mostly general household articles. The following comments were made.

P. and P.1 Kettle Descaler.—Contained 80 per cent w/v of formic acid against a declared 70 per cent. The labelling was satisfactory and at the time of sampling was made voluntarily by the manufacturer.

P. and P.2 Kettle Descaler.—Contained 49 per cent w/v of formic acid. Regrettably this article was labelled as "Non-Poisonous" although with proviso "must not be taken internally" and "care should be taken that it does not come into contact with the skin". At the time of sampling formic acid preparations were not subject to control.

P. and P.3 Warfarin.—See P. and P.23.

P. and P.4 Liquor Cresolis Saponatus B.P. "Kymol".—This article was criticised in January of 1957 and the same remarks now apply. The manufacturers have stated that the commodity ceased to be made under this label in 1949. Obviously a few isolated bottles still exist.

P. and P.5 Disinfectant.—Was satisfactorily labelled and contained 10 per cent w/w of phenols against a declared 10 to 15 per cent.

P. and P.6 H.E.T.P. Insecticide.—This product contained the correct amount of tetra-ethyl-pyro-phosphate. The labelling was criticised and the manufacturers replied that from their records these inadequacies of labelling had been pointed out to their Publicity Manager with instructions to correct. Before such action could be taken, however, the product was withdrawn on policy grounds. This occurred in 1952 when by general agreement in the industry it was not considered necessary for toxic materials of this type to be available to the amateur user.

P. and P.7 Vaporising Fumigator.—Was stated to contain 37·5 per cent v/v of nicotine and upon assay gave 37·4 per cent. The packing and labelling were satisfactory. Nicotine and its salts are subject to restrictions under Part 11 and Schedule 1.

P. and P.8 Liquid Insecticide.—Contained 3·3 per cent v/v of nicotine against 3·7 per cent v/v as declared. There is no exemption for any dilutions of nicotine. The only dispensation relates to nicotine dusts provided the nicotine content is less than 4 per cent.

P. and P.9 Kettle Descaler.—Contained 53 per cent v/v of formic acid. As with P. and P.1 and 2 there was at the time of sampling no statutory control on formic acid preparations.

P. and P.10 Concentrated Nicotine Insecticide.—Contained 3·5 per cent v/v of nicotine against a declared 4·0 per cent. The remarks on P. and P.8 above apply although there seems to be little justification for the word "concentrated".

P. and P.11 Candy's Fluid Germicide.—This was a solution of sodium permanganate which satisfied the stated available oxygen equivalent of 2 volumes at normal temperature and pressure. It is free from restriction on sale.

P. and P.12 Spray Fluid.—This fluid was contained in a sachet and had a total Pyrethrin content of 0·6 per cent w/w. Pyrethrin is not subject to Statutory control and the labelling of the product was satisfactory.

P. and P.13 Slug Killer.—Contained 3·0 per cent w/w of metaldehyde and as such is free from restriction on sale.

P. and P.14 Slug Destroyer.—Contained 3·5 per cent w/w of metaldehyde and as such is free from restriction on sale.

The two foregoing preparations are not likely to attract young children although cases have been known of the tablet forms of metaldehyde being mistaken for sweets.

P. and P.15 Liquid Insecticide.—Contained 3·5 per cent v/v of nicotine against a declared 3·7 per cent. See P. and P.8 and 10 above.

P. and P.16 Double Strength Weed Killer.—Contained 52 per cent w/w total phenols against a declared 54 per cent. The words "Double Strength" are difficult or impossible to prove or justify since there is no indication as to what the preparation is compared with. There are numerous instances of the use of these words "Double Strength" and we can only take the charitable view that the manufacturers do in fact make "Single Strength" preparations which somehow fail to reach the market!

P. and P.17 Nicotine Spray.—Contained 5 per cent v/v of nicotine. See P. and P.10 and 15 above.

P. and P.18 B.H.C. Gamma Spray.—Contained 20 per cent benzene hexachloride. The labelling of this article was satisfactory and there is no restriction on its sale.

P. and P.19 Nicotine Substitute.—Contained 8 per cent w/w of compounds calculated as pyrethrin. This would be a satisfactory and safe substitute for nicotine. It is a little difficult to understand why such prominence was given to the word nicotine, for the amateur user may well be led up the "wrong garden path".

P. and P.20 Phosphorus Rat Poison.—Contained 2 per cent of yellow phosphorus, as stated. The labelling of the article was satisfactory.

P. and P.21 Hair Dye Preparation.—One bottle contained a mixture of meta and para-phenylene diamine in approximately the amounts stated. The second bottle contained 16 volume hydrogen peroxide. The labelling was in accordance with statutory requirements.

P. and P.22 Lysol Disinfectant.—This sample was of satisfactory composition in respect of cresols and was labelled in accordance with statutory requirements.

P. and P.23 Mouse Bait.—See general comment on Warfarin at the end of this section.

P. and P.24 Nicotine Dusting Powder.—Contained 2·8 per cent w/w nicotine against a declared 3·0 per cent, certain labelling defects were noted—such as failure to disclose the name and address of the seller. Nicotine preparations as dusting powders are exempt only from the "known to the seller" and "certification" provisions and poisons registration requirements. All other statutory requirements must be complied with.

P. and P.25 Disinfectant Block.—Contained dichlorometaxylenol as stated. There is no restriction on the sale of this compound.

P. and P.26 Nicotine Dusting Powder.—The observations made on P. and P.24 apply here.

P. and P.27 Nicotine Spray.—Contained 4·8 per cent of w/w of nicotine against 5 per cent. The container was correctly labelled.

P. and P.28 Nicotine Spray.—Contained 19·4 w/v of nicotine against a declared 20 per cent. The bottle was correctly labelled.

P. and P.29 Kettle Fur Remover.—Contained 42·4 per cent w/w of formic acid which preparations are from the 1st July, 1959. Subject to certain statutory requirements.

P. and P.30 Vaporising Fumigator Liquid.—Contained 45 per cent v/v of nicotine against a figure of 37·5 per cent (unspecified as to v/v or w/w). The word "Poison" requires more prominence, preferably by red lettering for the word against a contrasting background.

P. and P.31 Rust Destroyer.—Contained 40 per cent w/w of phosphoric acid, and as such is free from restriction on sale.

Both *P. and P.3* and *23* contained Warfarin or (alpha acetonyl benzene)—4 hydroxycoumarin. Toxicologically this compound has two actions inhibition of prothrombin formation and capillary damage. The action is similar to that of dicoumarol except that capillary damage is greater. It has been reported that serious illness in man was induced by ingesting 1·7 mg. of Warfarin per kilogram body weight per day for 6 consecutive days, with suicidal intent. This would correspond to eating almost a pound of warfarin bait containing 0·025 per cent of the chemical each day for six days. All signs and symptoms were caused by haemorrhage and following multiple small transfusions and massive dose of Vitamin K, recovery was complete. (Reported in "Dangerous Properties of Industrial Materials"—N. Irving Sax). This obviously toxic material warrants careful control in distribution and use.

The Rat Repression Officer in this City however, is happy about the situation since the Warfarin is in fact used in high dilution in the actual baits and even in the master mix used by his staff, the amount of the poison is very small. There is little doubt of the efficacy of this substance in rodent control, and the Rat Repression Officer considers its use less dangerous than some of the older rodenticides such as zinc phosphide. The control for the moment therefore rests in the high dilution of the warfarin and the non availability of the pure chemical.

PART VI. MISCELLANEOUS ANALYSES

Table 14

General		
1.	General Examinations	98
2.	Biochemical and Toxicological and Regional Hospitals	39
3.	Foreign bodies, insects and infestation	58
4.	Gloucester County	35
5.	Gloucester City	1
6.	Zinc and Fluorine—Atmospheric Pollution	23
Bristol Corporation Departments		
7.	Central Purchasing and Town Clerk's	42
8.	City Engineer	24
9.	Port Health	586
10.	City Architect	4
11.	Art Gallery	1
12.	Crematorium	6
13.	Transport and Cleansing	2
14.	Housing	24
15.	Public Health Inspector's samples	36
University Departments		
16.	Bacteriology	5
17.	Physics	1
18.	Pathology	6
		991

1.—General

The 98 specimens submitted from various sources are of the expected miscellaneous character and a few of the more interesting are selected for brief comment. Inevitably there is some overlap with other sections of this Part on Miscellaneous analyses and a number of the articles were foods, bread, meat pies, cakes and the like, with alleged foreign matter much of which comprised charred, soiled or oily dough streaks within bread.

A minor scare occurred early in the year with respect to Italian apples which in some parts of the country were found to contain excessive amounts of lead and arsenic. The majority examined in Bristol were not unduly contaminated although a few only just fell within maxima recommended by the Food Standards Committee of the Ministry of Agriculture, Fisheries and Food.

A tea infusion submitted by a local practitioner on behalf of a patient was found to be free from toxic substances.

Some coconut flakes had developed a most unpleasant acid tang due to break down of the coconut oil. The particular change is characterised as "perfume rancidity". The "perfume" is something of a misnomer for the most unpleasant smell is anything but that!

In a collaborative determination of traces of arsenic in coffee essence, this laboratory found identical arsenic contents by wet oxidation and dry ashing techniques, and was in line with all laboratories except one which for some quite inexplicable reason reported significantly higher arsenic figures.

An ice cream stated to contain real cream was found to have a total fat of 12·9 per cent, of which 4 per cent was butterfat. This particular ice cream widely advertised in cinemas, seems to contain about as much fat, including butterfat, as the public taste generally regards as desirable. There is some evidence that the restrictions of the war years have changed public taste and high fats of the order of this ice cream are sometimes found to be nauseating even in the amounts consumed from ordinary "tubs".

A "powdered gelatine" was submitted as being useless for jelly preparation. This was adequately sustained as the article proved to be wholly ground rice!

The increasing use of cans by the brewing industry for their products has brought a few complaints of alleged metallic taste in the beer. These complaints have not been unheld unless we are prepared to admit susceptible individuals who can appreciate as little as 5 parts of tin per million.

A "butter" from a canteen was found to contain 25 per cent of water. The water addition was probably made by admixture of the butter with some 10 per cent of milk.

Some dominoes were examined for the presence of lead in the paint used to paint the "spots". This metal was found in undesirable amounts, particularly having regard to the complaint that the dominoes were being sucked by young children. These youngsters would only be really safe if they confined their attentions to the double blank!

A specimen of a rat diet used by the College of Technology for experimental purposes was found to contain 5 milligrams of nicotinic acid per 100 grams.

A number of flavoured drinking straws was submitted to somewhat drastic treatment by immersion in 2 per cent citric acid for periods of one hour when significant amounts of lead were found to be extracted from the flavoured and coloured fillings of the straws. This problem had been taken up elsewhere in the country and alteration made to the filling material to eliminate the offending metal contaminant. This matter illustrates the desirability of maintaining the lead intake of the population at the absolute minimum. The uptake of such proportions found in these drinking straws would represent far too high a proportion of the desirable daily maximum of this cumulative poison.

This Department is occasionally called upon to conduct a full examination of products intended for export. A non-alcoholic cider, an ordinary sweet cider and a triple vintage cider were so examined, some sixteen estimations being made in each case. Importing countries seem to insist upon the public analyst's certificate and upon occasions require endorsement of the analyst's signature by public notary. On one occasion the Medical Officer of Health was asked to give a certificate relating to conditions on the manufacturer's premises.

A "dairy milk powder" was submitted as being unsuitable for cold mix ice cream manufacture. The product was shown to consist entirely of cornflower which would undoubtedly produce an undesirable sludge in the cold mix process. The cornflour had been supplied in error.

A wallpaper had become suspect as being possibly implicated in a somewhat nebulous complaint of illness. A trace of arsenic was detected and was presumably derived from the colouring material used in the paper. The amount was considered as most unlikely to have caused illness, although certain moulds have been known to produce arsines in dangerous amounts, although under somewhat exceptional circumstances of high arsenic levels in colouring matters. Good quality wallpapers would not contain arsenical colourings.

The Chief Assistant Medical Officer of Health was interested in the contents of a so called magic fluid used in conjunction with a tightly wrapped plug of cigarette "tinfoil". When so used and rolled in the palm of the hand—considerable local heat was generated—accompanied by equally considerable laughter at the expense of the unsuspecting victim. The fluid was a 3 per cent solution of mercuric chloride in water and sold at such a fabulous price as to make the Analyst think once again he is in the wrong business!

2.—Biochemical and Toxicological

The 39 specimens came principally from the Regional Hospitals and relate mainly to blood and urines examined for lead or mercury, and occasionally other metals. This laboratory has adopted the following levels of lead as being diagnostically useful.

For Blood.

0·1 to 0·3 p.p.m. ..	Not significant except possibly in tissues, already damaged by lead.
0·3 p.p.m.	Symptoms of poisoning may begin.
0·6 to 0·65 p.p.m. ..	Critical level usually associated with the onset of severe symptoms.
0·7 to 1·0 p.p.m. ..	Almost always severe symptoms of poisoning.

For Urine.

The range is usually quoted at 0·001 to 0·20 mg. per litre with a figure of 0·21 mg. as dangerous. Monier Williams quotes nil to 0·08 mg. per 24 hour specimen as the normal range.

The majority of the bloods and urines submitted give lead figures within the acceptable normal ranges. One case, however, produced some extraordinary figures. A first 24 hour specimen taken on 18th July measured 1970 ml. and contained the equivalent of 1·04 mg. Four days later after treatment with calcium versenate a 2800 ml. specimen contained the equivalent of 10·5 mg. of lead.

A sample of thiamine submitted by the Veterinary Laboratories, Langford, was found to be 95 per cent purity.

The urine of two patients examined for mercurial poisoning gave the following figures which are compared with results obtained on the same patients one year previously.

M.290	Urine less than 0·03 p.p.m. May 1958. (of May 1957 0·09 p.p.m.)
M.291	Urine 0·14 p.p.m. May 1958 (of May 1957 0·16 p.p.m.)

A remarkable and fortunately non-fatal case occurred during a warm spell in early July. A lorry driver and his mate halted outside a small general shop, not far from this laboratory and the mate entered the shop and purchased what he thought and indeed had every right to expect, was, a quart bottle of a well known brand of cider. He returned to the lorry and gave the driver the first "swig" of the bottle. The driver very promptly spat out the fluid and became extremely violent and irate thinking his mate was playing a practical joke. A police officer was called to restrain the couple and the whole sad story began to sort itself out. The bottle was brought to the laboratory and the driver taken to hospital. The bottle contained creosote and was in fact labelled as such albeit somewhat indecisively as compared with the main and ordinary label indicating a well known cider. The vendor had used the bottle for storing creosote but some member of his staff had mistakenly stored it with genuine cider bottles of the same labelling. Fortunately the victim suffered no ill effects other than perhaps to his dignity. Nevertheless the whole episode does illustrate a potentially dangerous practice in the use of bottles for purposes other than those for which they were intended. Indeed I must confess to a considerable sympathy with the trade in their unceasing battle to weed out offending milk bottles, lemonade bottles and the like which may have been used as containers for a range of fluids from hair waving preparations to paraffin.

Southmead General Hospital Group Management Committee submitted for examination four samples of fresh tomatoes grown in the Hospital greenhouses. Several of these otherwise excellent quality tomatoes had suffered extensive internal blackening. Exhaustive enquiries from numerous local contacts eventually led to the suggestion that the trouble was due to potash deficiency aggravated by shortage of water. Bacterial and fungal infections were both eliminated.

3.—*Foreign Bodies in Foods, etc. including Infestation and Identification of Insects*

Table 15

Lab. No.	*Article*	*Comment*
M. 6	Shelled peanuts	30 pellets of rodent excreta
7	” ”	Both free from excreta
8	” ”	
13	Fried fish	A few black specks of charred fish
14	Meat pie	Fragments of hard wood
16	Dried apricots	Infested with black and yellow ants
38	Jam tart	0·5 grm. of metal, tin and lead, embedded in the tart
41	Loaf of bread	Scorched dough and not rodent excreta
42	Meat pasty	A 1½″ flat headed nail embedded.
43	Pork pie	Scorched black fragments not rodent excreta
92	Insects	*Blattella germanica*—the Crotan Bug
104	Insects	Common garden species
192	Meat pie	Suspect fragment was a portion of mushroom
200	Butter	Contained a piece of corrugated paper
236	Insects	*Attagenus Pellio*
260	Self raising flour	Mass of brown matter found to be dripping
271	Canned grapes	Crystals of cream of tartar of natural occurrence
274	Sausages	Patches of congealed blood with fragments of skin and bristles
292	Bread	Fragments of scorched dough and not rodent excreta
293	Bitter ale	Contained a pellicle of mould growth
294	Bread	Contained husks, insect fragments and a piece of coarse white string
311	Sultanas	Contained pellets of rodent excreta
312	Vinegar	Vinegar eels present
313	Insects	*Attagenus Pellio*
333	Cake	Contained pellets of rodent excreta
334	Insects	*Attagenus Pellio*
349	Tea infusion	Contained 0·75 per cent of washing soda
350	Non-brewed condiment	Vinegar eels in large numbers
351	” ” ”	A satisfactory condition
357	Insects	A mixed collection of several dead and one live species of *Attagenus Pellio* and one Death Watch beetle
365	Insects	*Anobiidae* or furniture beetles
366	Salt	Foreign matter was rust scales
412	Frozen beans	Mould growth probably due to thawing and refreezing
446	Bread rolls	Scorched dough present and no nasal mucus as was suspected
485	Scone	Contained a portion of stem of vine fruit
509	Bread	Foreign matter was soiled dough
517	Bottle of milk	Snail in milk. Fined £10
543	Ice cream soda	Green sediment consisted of yeast cells
544	” ” ”	
545	” ” ”	
570	Milk fudge	Webbing and excreta of cocoa moth
571	Nut bars	No infestation
593	Bread rolls	No excreta or mineral oil
625	Rice	Webbing and excreta of *Ephestia*
655	Chocolate bar	*Ephestia Kuehniella*
675	Frozen peas	A portion of the pea plant
682	Bread	Portion of a wood louse
738	Bun	Piece of metal tin cooked in the bun
739	Chocolate cream buns	*Ephestia*
740	Bread	Fragments of charred dough

Table 15 (continued)

Lab. No.	*Article*	*Comment*
M. 769	Loaf of bread	Contained a portion of cigarette
793	Chocolate	*Ephestia*
816	Bottle of milk	*Drosophila*
829	Sweet	Piece of wire
897	Bottle of milk	Unidentified black amorphous particles
922	Dried milk	Contained over heated dried milk fragments
923	Scotch oats	Heavily infested with mite—*Tyroglyphus farinae*
932	Bottle of milk	Contained a portion of kidney bean

The foregoing list of 58 specimens once again illustrates the public awareness of the need for clean food, since most of the specimens were the result of complaints by members of that long suffering body. In most instances where action was necessary a warning letter and/or visit by a public health inspector usually sufficed. Only in a few cases was it deemed desirable to institute proceedings.

These included metal fragments in food, cigarette end in bread, and a snail in milk. The case of the cigarette end in bread occupied two days in the local court and ended by the defence successfully maintaining that the bread was not of their manufacture—a process achieved by a fine succession of red herrings calculated to confuse the real issue!

The occasional allegation of glass in food is made and is rarely substantiated. These troubles usually concern:—

(*a*) Canned fish—lobster, crawfish, crab, etc. in which the cause is struvite or magnesium ammonium phosphate.

(*b*) Grape products and occasionally processed cheese in which the cause is cream of tartar, potassium hydrogen tartrate.

M.412. (Frozen bean containing mould) illustrates a potential source of danger with frozen foods in as much as it is extremely unwise to thaw and re-freeze such products. Indeed manufacturers stress the point that foods should be used up if once thawed.

4.—*Gloucester County*

Thirty-five samples were examined for the County and showed a similar diversity to those from the City. They included water, soil and subsoil water, sweets, apples, a fungus, bread and lemonade. These items are listed with comments under the report to the County.

5.—*Gloucester City*

Only one sample was examined. This was some specimens of cellophane wrapped toffee which had been accidentally sprayed with a fire extinguisher of the soda-acid type. The toffee itself was quite unaffected.

6.—*Atmospheric Pollution*

This small section of routine examinations is separated from the main bulk of pollution problems because the collected rain water is not used in the conventional manner prescribed by the D.S.I.R. For several years the rain water has been examined for total zinc and fluorine compounds. Two sites are involved (*a*) Avonmouth Dock and (*b*) Barracks Lane. The range of depositions for 1957 and 1958 are compared.

	Avonmouth Dock		*Barracks Lane*	
	1957	*1958*	*1957*	*1958*
Zinc tons/sq. mile . .	0·04 to 0·55	0·014 to 0.39	*0·006 to 0·05	0.01 to 0.05
Fluorine tons/sq. mile	0·03 to 0·14	nil to 0.25	*0·008 to 0·03	nil to 0.04

* For eight months only.

7.—Town Clerk and Central Purchasing Departments

There was a considerable increase in the number of samples submitted this year. The 42 items included paints, sweeping compounds, colourings, custard powder and cornflower, floor polishes, detergents, cleaning powders and one document. Many of the items were supplied under contract against Corporation or other (*e.g.* B.S.I.) specifications and further involved selection based upon composition and with due regard to price considerations. The Central Purchasing Officers find the laboratory a helpful service and we for the other part hope that significant economies can result from our technical advice. It must be recorded here that much useful information on paints has been supplied to the Department by the good offices of the Scientific Adviser to the London County Council; my thanks are due to Dr. Burgess for his help.

8.—City Engineer's Department

All the 24 specimens submitted required examination for sulphate content and pH value in relation to possible attack upon cement work. This type of problem has been with us for many years and the assessment of sulphate level is helpful to the Engineer in determining the type of cement to be used in the many building programmes for which he and other Departments are responsible.

9.—Port Health

Nearly 600 samples, that is well over half the miscellaneous group, were submitted by the Port Health Inspectors. Chemical examination and inspection at the Docks provides a satisfactory cover of imported foodstuffs.

The bulk of the specimens were canned goods of many varieties and from all parts of the world. Metallic contamination of canned goods principally relating to lead and tin was of a low order and very little food required condemnation on that score. Besides the chemical examinations most of the canned goods are examined for sterility and again for items that could be rejected. The chemical and bacteriological picture thus presented is eminently satisfactory having regard to the vital importance of canned goods in our economy.

A few of the items submitted require some comment. Dried apricots from S. Africa were sulphited up to and beyond the requirements of the Preservative Regulations. This type of problem can often be solved by a judicious blending of fruit above and below the statutory requirements. Small excesses can reasonably be condoned particularly if the fruit is intended for manufacturing purposes.

All canned fish has been "monitored" using a Panax radiation monitor Type 6950/C, an instrument designed primarily for geological and prospecting purposes. This treatment is sketchy and can be much improved by different techniques and more sensitive apparatus which we hope to acquire in the new year.

Frozen pork sausages of Irish origin were found to be distinctly borderline in respect of total meat content having regard to the general acceptable requirement of 65 per cent.

A powder alleged to have "contaminated" aluminium ingots, and also to have caused irritating skin rashes was found to be essentially moulding sand containing 86 per cent of silica (SiO_2) with the remainder as debris of an organic character. The sand was very finely divided and with persistent handling might cause irritation particularly in susceptible persons.

A few samples of corned beef contained somewhat high amounts of lead. the distribution throughout the meat was very erratic and rose to 40 p.p.m. in one sample where the overall level averaged 5 p.p.m., the maximum recommended level of lead in canned goods.

Canned apricot pulp was found to contain lead of the order of 9 p.p.m. and tin up to 350 p.p.m. and a few samples of canned tomatoes were badly blown and decomposing. Some pineapple chunks contained a somewhat undesirable level of tin at 280 p.p.m. and canned herrings were found in a state of decomposition.

Samples of Rollmop Herrings of German origin were packed in a container bearing a label implying the presence of both benzoic acid and hexamine. Diligent search failed to reveal the presence of either preservative and it must be assumed that the packers were aware of British food law requirements but the article had been so labelled as to satisfy requirements of the country of origin.

Finally one insect was identified as the Devil's Coach-horse Beetle (*Ocypus olens*). This beetle is common in this country being found in gardens, on paths and under stones. It is mainly a carrion feeder, and is not dangerous to humans.

10.—City Architect's Department

Four specimens including a deposit from a drain and mastic bedding and tile materials.

11.—Art Gallery

A specimen of a colour was heat treated in the laboratory to produce the tint as required by the Director.

12.—Canford Crematorium

A four month's survey of possible sulphur pollution of the atmosphere was undertaken because of damage suffered by silver contacts in an electronic organ in the chapel. Silver is highly susceptible to attack by sulphur compounds and there is little doubt that such compounds in the atmosphere at the level commonly detectable was sufficient to throw the instrument out of tune with disturbing consequences to otherwise solemn occasions. The trouble some silver contacts were subsequently replaced by gold alloy. It is worth noting that the SO_3 in mgm. per 100 sq. cm. per day ranged thus—

The organ loft	August 0·003 to November 0·12
The furnace room ..	August 0·198 to November 2·5

13.—Transport and Cleansing Department

A full chemical examination was made upon two samples of pig food concentrate to enable a suitable market price to be established having due regard to moisture, protein, fibre, carbohydrate and ash.

14.—Housing Department

Twenty-four samples of paints, undercoating and gloss finishes were examined chemically and compared with a view to shortening the list of twelve suppliers. Recommendations were made in respect of seven manufacturers, due regard being paid to price of the various items. The Scientific Adviser to the London County Council gave some useful information on the analysis of paints and it was noted that particular stress was laid on physical, rather than chemical, composition. My thanks are due to Dr. Burgess for his help.

15.—District Public Health Inspectors' Samples

Thirty-six specimens were submitted and included insects for identification and foods for assessment of fitness for human consumption. Among the articles condemned were ox tongues in jar, and "imitation" cream smelling strongly of sulphuretted hydrogen.

The following insects were submitted for identification.

DSI. 3—Two specimens of *Ptinus tectus*—a small beetle of cosmopolitan distribution.

DSI. 4—Two further mutilated specimens of *Ptinus tectus.*

DSI. 5—Tyroglyphid mites.

DSI. 6—A single specimen of *Attagenus pellio*—This insect is commonly found in the spring of the year. The larva are probably present in most houses.

DSI. 9—Alleged worms identified as larvae of *Chironomida*, a non-biting midge.

DSI. 14—Two insects were identified as *Tenebrio molitor*, meal beetle.

DSI. 15—A brown beetle identified as an immature cockroach.

DSI. 16—A mite identified as *Dermanyssus gallinae*—a parasite found on poultry, pigeons, canaries and other domestic birds in Europe. It has frequently been reported as attacking man.

DSI. 17—Insects from bird boxes identified as soft bodied lice of the order *Psocoptera* which includes the book louse.

DSI. 18—Of the insects submitted four were *Ptinus tectus* and the other two undeterminate garden species.

DSI. 19—Larvae identified as dipteral larvae typified by the bluebottle or blowfly.

DSI. 20—An unidentified species of mite found in a hay loft.

DSI. 21—Flies identified as the *Calliphora vomitoria*, the blue bottle which lays its eggs almost exclusively on carrion or on any available meat.

DSI. 22—Three live larvae found infesting a dried apricot were identified as of *Ephestia kuehniella*, Mediterranean Flour Moth. It is the larval form which does the damage but the mobility of the adult moth is responsible for the rapid spread of infestation.

DSI. 26—Insect identified as *Dermestes vulpinus*, an insect widely distributed in nature but neither the larvae or mature insect would attack human beings.

DSI. 28—A fly identified as *Calliphora vomitoria*, the blue bottle.

DSI. 33—Insects identified as *Ptinus tectus.*

DSI. 34—Insects identified as *Anthrenocerus australis*, Australian Carpet Beetle. The larvae form and not the mature insect causes damage to carpets, etc.

DSI. 36—Insects identified as *Culex pipiens* the common gnat and *Anopheles maculipennis.* Both species are common and have aquatic larval and pupal stages which may be found in rain water barrels, water tanks, ditches, ponds and streams.

A few other items may be mentioned—

DSI. 8—Piece of Bacon Rind. The rind was discoloured with a blue green tinge. The colour was shown to be due to traces of copper. Little penetration through the rind was noted and it was accepted that the bacon after trimming of the discoloured rind would be suitable for consumption.

DSI. 27—*Puppodums*—an Indian preparation of lentil, flour, starch with some seasoning giving a characteristic odour which was found to be fit for human consumption.

DSI. 29, 30 & 31—Ox tongues. Examination for nitrates did not reveal any abnormal quantity in the complaint sample DSI. 29. Among the recommendations for pickling tongues it may be noted that the pH of the pickling bath is critical between 5 and 6. Below 5 the meat may become tough and above 6 the meat becomes gelatinous and soft.

DSI. 32—Wallplaster found to contain significant amounts of urea suggesting seepage from a drain.

The University Departments submitted the following specimens:

16.—Bacteriology Department

Fat in urine—The fat proved to be butterfat an extraordinary case of malingering. The patient was determined that the practitioner should find something amiss and submitted a specimen of urine suitably "doctored".

Other specimens were a water for metallic contamination, two "butters" one of which was entirely margarine, and the washings from plant used in lolly manufacture and which contained 86 p.p.m. of available chlorine.

17.—Pathology Department

Urine from a Jaguar—This was found to contain 0·12 per cent of matter extractable by petroleum ether.

Three samples of Amniotic fluids examined for total solids and ether extractable material.

The kidney from a heifer examined for oxalic acid but without success.

A deposit from a child's faeces was found as might be expected to be almost entirely organic in origin with only 5 per cent of ash consisting primarily of calcium and magnesium phosphates.

18.—Physics Department

A sludge taken from the basement of a workshop was found to be contaminated with matter of sewage origin.

PART VII. REPORT ON WORK FOR THE COUNTY OF GLOUCESTER

This is the seventh annual report on work for the County consequent on the agreement of 1951. In accordance with the terms of that agreement the majority of the examinations relate to Milk, and Food and Drugs, with Waters, Fertilisers and Feeding Stuffs, Atmospheric Pollution problems and Miscellaneous in that order of sample numbers, although not necessarily of priorities. The Department continues to provide a consulting as well as an analytical service.

Table 16—Summary of Examinations

	March	*June*	*September*	*December*	*Total*
Milk	202	181	150	181	714
Food and drugs	135	137	105	148	525
Waters and swimming baths ..	17	36	28	32	113
Fertilisers and feeding stuffs ..	18	18	18	19	73
Miscellaneous	14	2	6	10	32
	386	374	307	390	1,457
Pharmacy and poisons— ..	—	—	2	8	10
Atmospheric pollution—					
Lead peroxide	18	21	21	21	81
Deposit gauges	17	21	21	21	80
	35	42	44	50	171
Totals	421	416	351	440	1,628

Table 17—Adulterated Samples

Food and Drugs Act

Serial No.	*Article*	*Whether Formal or Informal*	*Nature of Adulteration or Irregularity*
B. 2267	Milk	Informal	6·7% deficient in fat
B. 2355	,,	,,	6·7% deficient in fat
A. 2149	,,	,,	11·7% deficient in fat
A. 2150	,,	,,	5% deficient in fat
A. 2154	,,	,,	11·7% deficient in fat
A. 2155	,,	,,	13·3% deficient in fat
A. 2156	,,	,,	11·7% deficient in fat
	(Bulk fat A.2149 to A.2158 was 3·15%)		
A. 2160	Milk	Informal	3·5% added water
A. 2161	,,	,,	2·4% added water
A. 2164	,,	,,	3·5% added water
A. 2182	,,	,,	6·6% deficient in fat, and abnormal N.F.S. at 8·3%
A. 2183	,,	,,	5% deficient in fat
	(Bulk fat A.2178 to A.2185 was 3·5%)		
B. 2378	Milk	Informal	33·3% deficient in fat, and abnormal N.F.S. at 8·3%
B. 2387	,,	,,	5% deficient in fat
B. 2473	,,	,,	6·7% deficient in fat
C. 2400	,, (Channel Island)	,,	5·9% added water
C. 2410	,, (Channel Island)	Formal	30% added water
C. 2443	,,	Informal	6·7% deficient in fat
B. 2394	Pork Sausage	Formal	51% of meat (suggested minimum meat 65%)
C. 2348	Beef Suet	Informal	79% of fat (83% minimum requirement)
A. 2287	Milk	,,	30% deficient in fat
A. 2289	,,	,,	6·7% deficient in fat
A. 2332	,,	Formal	25·0% deficient in fat
A. 2333	,,	,,	15% deficient in fat
A. 2335	,,	,,	10% deficient in fat
	(Bulk fat A.2332 to A.2335 was 2·7%)		
B. 2496	Milk	Informal	5% deficient in fat
B. 2519	,,	Formal	13·3% deficient in fat
A. 2428	,,	Informal	10·6% added water
A. 2429	,,	,,	15·3% added water
C. 2618	,,	,,	5·9% added water
C. 2630	,,	,,	12·4% added water
A. 2386	Beef Sausages	,,	Sulphur dioxide 160 p.p.m.
A. 2387	,, ,,	,,	Sulphur dioxide 220 p.p.m.
A. 2422	,, ,,	Formal	Sulphur dioxide 290 p.p.m.
A. 2439	Pork Sausages	,,	Sulphur dioxide 220 p.p.m.
	(In the above four cases SO_2 was not declared)		
C. 2562	Plain Flour	Informal	Low in iron and calcium in contravention of the Flour (Composition) Regulations, 1956.

Table 18—Summary of Milk Analyses

	1st qtr.	*2nd qtr.*	*3rd qtr.*	*4th qtr.*	*Total*
Fat deficient	2	11	7	—	20
Added water	—	5	—	4	9
Abnormal solids—not fat	15	14	5	13	47
Poor quality fat. Just less than 3·0%	1	3	4	1	9
Suspicious. Low N.F.S. and freezing point depression less than 0·530°C	2	2	—	1	5
Channel Island satisfactory	34	28	31	26	119
Channel Island unsatisfactory	—	2	—	—	2
Channel Island, poor quality, i.e. fat just below 4%	2	1	—	—	3
Total milks	202	181	150	181	714
Formal	58	60	60	78	256
M.M.B. Contract	—	8	7	6	21
M.M.B. Contract, poor quality	—	1	1	—	2
M.M.B. abnormal S.N.F.	—	—	2	2	4

Thus of 714 milks examined, 47 were abnormal in respect of solids-not-fat, that is, they gave figures below 8·5 per cent, but the freezing point data did not indicate added water. The situation in respect of Channel Island Milks seems satisfactory. Of the 719 examined, 3 were just below 4·0 per cent and 2 showed added water, one 5·9 per cent and the other 30 per cent!

Other Foods and Drugs Requiring Comment

A. 2086—Milk with a foreign body. The foreign body was confirmed as an insect larva probably of a fly but the actual species could not be ascertained.
B. 2388—Gravy salt—The container, a tin, was in very poor condition but there was no significant metallic contamination in the salt.
B. 2429—Glycerin—This sample was returned as of poor quality having "picked up" moisture possibly because of the unsatisfactory bottle closure.
C. 2393—Milk with foreign body—The "body" was a leaf from the oak tree.
C. 2420—Sliced bread with foreign body—The "body" was a piece of dirty dough with vegetable debris and a few unidentifiable insects fragments.
B. 2530—Pure ground almonds had an unpleasant acid tang which would render it unfit for human consumption.
B. 2289—Pork Sausages—only 52 per cent meat.
B. 2394—Pork Sausages— „ 51 „ „ „
C. 2530—Beef Sausages— „ 43 „ „ „
C. 2531—Pork Sausages— „ 47 „ „ „
B. 2631—Pork Sausages— „ 62 „ „ „
B. 2643—Beef Sausages— „ 48 „ „ „
C. 2588—Beef Sausages— „ 45 „ „ „
C. 2535—Plain Flour—Slightly high in calcium content.
B. 2576—Cake Mixture—Damp and out of condition.
B. 2650—Marzipan—Poor quality, only 16 per cent of ground almonds.

Table 19—Waters Effluents, etc.

Wells	22
Mains, public and private suppliers	45
Sewage, effluents, streams and lakes, etc.	28
Swimming baths	15
Miscellaneous	3
	113

Sixty-seven samples of drinking water were examined and forty-two were passed as chemically and bacteriologically satisfactory. The remaining 25 were shown to be polluted and hence unfit for consumption.

Table 20—Pharmacy and Poisons Act

The ten samples examined were reported as follows:—

P. & P.	5	Kilrock K	71·6% w/v formic acid
	6	Furgon	75% w/w phosphoric acid
	7	Klenoff Cooker Cleaner	8·5% w/w caustic soda
	8	Ovenstick	10% w/w caustic soda
	26	Descalite	61·8% w/w formic acid
	27	Descaling Fluid	59·8% w/v formic acid
	28	Radiator Cleaner	81·3% w/w anhydrous sodium carbonate and free from restriction on sale.
	29	Liquid Radiator Cleanser	34% w/v sodium silicate in water. Free from all restrictions on sale.
	30	Oven Spray	27% w/w of sodium hydroxide and as such a Part II (Class 15) article. This article was not correctly labelled with the "Caution" notice.
	31	Steam Iron Descaling Fluid	54·8% w/w formic acid

From 1st July 1958 in accordance with the provisions of S.I. 1016 formic acid becomes a Part II Poison except for solutions containing less than 5 per cent. Samples Nos. 5, 26, 27 and 31 are thus subject to control. No. 6 is a sample containing 75 per cent w/w of phosphoric acid. This acid is at present free from restriction on sale and it would appear that the substitution of this acid for formic acid is an attempt to avoid the restrictions now applying to formic acid based kettle descalers. Phosphoric acid is a strong acid and could cause severe injury unless handled with great care.

Control in respect of caustic preparations (see Nos. 7, 8 and 30) relates to products containing 12 per cent w/w or more of potassium or sodium hydroxide. Thus Nos. 7 and 8 are free from restriction whereas No. 30 is not.

Fertilisers and Feeding Stuffs Act

	Formal	*Informal*	*Requiring Comment*
Fertilisers	5	15	3
Feeding stuffs	36	17	3

Comment was required on—

No. 840—Cattle Food, Formal. The sample contained 13·7 per cent protein (declared 17·5 per cent). The product was very heterogenous and it was difficult to secure a satisfactory sample for analysis.

No. 843—Dairicon Pencils, Informal. The oil was 4·2 per cent (declared 3·0 per cent) and the protein was 31·8 per cent (declared 37 per cent).

No. 701—Liquid Fertiliser, Informal. This article was misnamed inasmuch as it was a solid preparation with details supplied for making a liquid. There was a deficiency in soluble phosphate.

No. 710—Bone Meal, Informal. The nitrogen was high but the excess could not be regarded as to the prejudice of the purchaser.

No. 873—Tomato Fertiliser, Informal. This insoluble phosphate was slightly low.

No. 871—Coarse Dairy Ration, Formal. The protein at 19·7 per cent was somewhat excessive, the limits of variation being 15·3 to 18·7 per cent.

Table 21—Miscellaneous Samples—Including Atmospheric Pollution Examinations

Atmospheric pollution—	
Lead peroxide	81
Deposit gauges	80
Sub-soil water	8
Sweet	1
Apples	6
Clay and soil	6
Fungus	1
Ginger beer plant	1
Portions of sliced bread	3
Sample of deposit from piping	1
White worms in water	1
Mud dredgings from canal	4
	193

The pollution surveys were carried out upon the authority of the Kingswood U.D.C., Stroud U.D.C., Dursley R.D.C., and Thornbury R.D.C.

Table 22

Nature of sample	*Total examined*	*Number adulterated or otherwise irregular*
Milk	714	29
Almond essence	1	—
Almond, icing and margarine	12	—
Apples	7	—
Ales and beers	3	—
Butter	3	—
Beans, baked	3	—
Baking powder	2	—
Breadcrumbs	1	—
Bread	6	—
Broad beans	1	—
Biscuits	2	—
Beef suet, shredded	4	1
Cheese spread and processed	29	—
Cream	13	—
Cockles	1	—
Coffee and chicory essence	1	—
Cakes	10	—
Cake mix	3	—
Christmas pudding	4	—
Custard powder	1	—
Candied peel	1	—
Canned fish	6	—
Canned fruit	7	—
Canned meat	13	—
Canned soup	16	—
Canned vegetables	6	—
Canned tomatoes	5	—
Cooking fat	1	—
Coconut, desiccated	5	—
Cornflour	1	—
Curry powder	1	—
Canned pudding	1	—
Canned strained egg custard with rice	1	—
Dried fruit	8	—
Dried mixed herbs	1	—
Dripping	4	—
Flour	22	1
Flavourings and colourings	9	—
Faggot	1	—
Flavoured drinking straws	1	—
Gravy salt	2	—
Ground nutmeg	1	—
Garden mint	1	—
Ground almonds	2	—
Gingerbread mix	1	—
Glaze cherries	1	—
Ice cream	14	—
Ice lolly	4	—
Jelly cubes, powder and crystals	6	—
Liqueur chocolates	1	—
Lemonade powder and crystals	3	—
Lemon pie filling	1	—
Lard	2	—
Meat products	22	—
Margarine	3	—
Milk rolls	1	—
Milk (with foreign body)	2	—
Milk powder	1	—
Milk, evaporated	1	—
Mustard	2	—
Meat extract	1	—
Milk shake powder	2	—
Mustard cream	1	—

Nature of Sample	*Total Examined*	*Number adulterated or otherwise irregular*
Nut kernels	1	—
Oranges	1	—
Paste, meat and fish	21	—
Preserves, jams and honey	26	—
Pepper	4	—
Pickling spice	1	—
Pheasant savoury	1	—
Pears	1	—
Rice, ground	2	—
Sauces	6	—
Sausages, beef and pork	59	3
Spirits	5	—
Soft drinks	29	—
Stuffing	3	—
Suet	1	—
Sandwich spread	1	—
Sweets	12	—
Salad dressing and cream	2	—
Scone mix	1	—
Strained apple purée and custard	1	—
Shrimps	1	—
Semolina	1	—
Skels	1	—
Tomato juice cocktail	1	—
Tomato juice	1	—
Tea	5	—
Thyme	1	—
Vinegar, malt, non-brewed condiment	3	—
	1,198	34
Aspirin tablets	3	—
Anti-sickness tablets	1	—
Acid calcium phosphate 80%	1	—
Amovan corn paste	1	—
Bi-carbonate of soda	3	—
Boracic powder	1	—
Cough lozenges and mixture	2	—
Codeine linctus and tablets	5	—
Capsules of halibut liver oil	1	—
Digestive tablets	1	—
Epsom salts	1	—
Foot paste	1	—
Foot comfort	1	—
Gees linctus	1	—
Glucomin	1	—
Glycerin	1	—
Halibut oil capsules	3	—
Mentholated balsam	1	—
Nasal drops	1	—
Olive oil	1	—
P.E. tablets	1	—
Saccharin tablets	2	—
Saxin tablets	1	—
Tincture of iodine	4	—
Union Jack paste	1	—
Yeast extract	1	—
	41	—
Total of foods and milk	1,198	34
Total of drugs	41	—
Total	1,239	34

PART VIII. REPORT ON THE WORK FOR THE CITY AND COUNTY OF GLOUCESTER

This Report represents the first complete year of work done for the City consequent upon the agreement which becomes operative in September 1957.

Table 22—Summary of Examination

Milk	49
Food and drugs	105
Waters	2
Fertilisers and feeding stuffs	8
Miscellaneous	1
Atmospheric Pollution—	
Lead peroxide	22
Deposit gauges	23
	210

Table 23—Food and Drugs

	Total examined	*No. irregular*
Foods		
Milk	49	1
Butter	6	—
Lard	5	—
Rice	4	—
Sago	2	—
Stewed steak	1	—
Tapioca	3	—
Tea concentrate	1	—
Salad cream	4	—
Lemon curd	6	—
Cream, double and clotted	3	—
Chicklettes	2	—
Dairy cream bun	1	—
Dairy cream eclair	1	—
Cream split	1	—
Sausage, beef and pork	2	—
Preserves	16	—
Coffee and chicory essence	1	—
Jellies	3	—
Milk flavouring syrup	3	—
Malt vinegar	6	—
Mustard	1	—
Dried fruit	3	—
Ground almonds and marzipan	6	—
Suet	1	1
Sugar	1	—
Spirits	6	—
Wine	4	—
Fish cakes	3	—
Drugs		
Hydrogen peroxide	1	—
Ammoniated tincture of quinine	1	1
Blood pressure tablets	1	—
Bronchial catarrh syrup	1	—
Ferro vitae tablets	1	—
Tincture of iodine	1	—
Blood purifying tablets	1	—
Total	154	3

Comment was made on the following—

1640A	Chicklettes	Informal	Only 18% Chicken.
1646	Chicklettes	Formal	Only 21·5% Chicken.

Twenty five per cent of chickens in such articles would seem a not unreasonable minimum amount. These samples were regarded as of poor quality.

1645A	Cream Split	Informal	Contained 25 per cent of total fat of which only 2·5 per cent was butterfat. The article should be named as an "Imitation cream bun".
1647	Beef Sausage	Formal	61 per cent meat and
1652	Pork Sausages	Formal	68 per cent meat were of satisfactory quality in respect of meat.
1697A	Sugar	Informal	Contained 4 per cent of custard powder.

Eight milks were abnormal in respect of solids-not-fat. One sample was 10 per cent deficient in fat and was also abnormal in solids-not-fat. Five Channel Island milks were satisfactory.

Adulterated Samples

1673	Ammoniated Tincture of Quinine	Formal	Ammonia only 0·81 per cent.
1745	Shredded Beef Suet	Formal	9·6 per cent deficient in fat.

Fertilisers and Feeding Stuffs Act

1A	Dried Blood	Informal	Satisfactory.
2A	Dried Blood	Informal	Satisfactory.
3A	Bone Meal	Informal	Satisfactory.
4A	National Growmore	Informal	Potash somewhat high. Excess not to the prejudice of the purchaser.
5A	Spate General Fertiliser	Informal	Satisfactory.
6A	Chick Raising Crumbs	Informal	Satisfactory.
7A	Chick Growing Meal	Informal	Satisfactory.
8A	Full-o-Bloom Fertiliser	Informal	Satisfactory.

Waters and Swimming Baths

G City 1	Swimming bath	Satisfactory.
G City 2	Mains water	Chemically satisfactory apart from slight turbidity and musty odour.

Miscellaneous

M.	Toffee	Wax treated type of cellophane wrapping accidentally contaminated with sodium bicarbonate solution. Toffee within the wrapping was quite unaffected.

Atmospheric Pollution

Lead peroxide	22
Deposit gauges	23

Two sites in the City were operative throughout the year.

The Lannet gave a total deposition as 138 tons per sq. mile for the year, that is an average of 11·5 tons per month, whilst at the Technical College the total deposition was 93 tons for 11 months or an average of 8·5 tons per month. These figures may be compared with data obtained at the centre of Bristol, 172 tons per sq. mile in the year and the Zoological Gardens 100 tons per sq. mile in the year.

The Lannet site showed the greater variation of pollution ranging from the surprisingly heavy 37 tons in January to as little as 1·4 tons in October. For the Technical College the heaviest pollution was 13 tons in February and down to 3 tons in October. The rainfall figures in inches were—

	Highest	*Lowest*	*Total*	*Average*
Lannet	5·31 Sept.	0·57 Oct.	29·16	2·43
Technical College ..	5·31 Sept.	0·77 Oct.	26·74 (11 months)	2·43

The sulphur pollution data at the two sites was as follows (expressed in mgm. of SO_3 per 100 sq. cm. of lead peroxide surface per day)

	Highest	*Lowest*	*Total*	*Average*
Lannet (for 11 months) ..	2·49 Dec.	0·27 July	11·95	1·09
Technical College ..	2·61 Feb.	0·49 July	14·42	1·31

Compare these with the Centre of Bristol—average 2·06, and the Zoological Gardens 1·20.

PART IX. ATMOSPHERIC POLLUTION

Table 24

	Bristol	*Gloucester County*	*Gloucester City*
Lead peroxide	108	81	22
Deposit gauges	91	80	23
Silica and phosphorus	9	—	—
Zinc and fluorine	24	—	—
Smoke recording, City	309	—	—
Smoke recording, Port of Bristol Authority ..	324	—	—
	865	161	45

The examinations made in the year totalled 1,071 or over ten per cent of the work of the Department. New sites were established in Gloucester City at the Lannet and the Technical College, both now equipped for deposit and sulphur dioxide, and in the Thornbury area as from 1st March at Walning and Brynleaze farms. The latter are intended to secure datum line information prior to the establishment and operation of the Berkeley Power Station and the projected I.C.I. works.

The City Survey

The five stations concerned in this survey are located at Marsh Street (City Centre), Shaftesbury Crusade (St. Philip's), the Zoological Gardens (roof of the elephant house), Blaise Castle (roof of the stables), and Wootton Road, St. Anne's (garden of private house).

It is worthwhile to indicate how the degree of pollution is measured and in respect of the rain gauges, we have the D.S.I.R. approved apparatus which consists essentially of a glass collecting bowl of known area, which feeds the rainfall into a bottle of some 10 litres capacity. Very approximately a full bottle of 10 litres would represent some 5 inches of rainfall. Each apparatus is left for one month, and on or about the first of each month the rainfall is collected and a fresh 10-litre bottle placed in position. In all cases the bottle is contained in a lagged box to protect it during frost conditions. At periods of heavy rain it may be necessary to inspect each site at mid-month, or as dictated by weather conditions. Upon receipt at the laboratory, the collected rainfall is measured and examined for soluble, insoluble and tarry matters with estimations of calcium, chloride, sulphate and pH value. The Local Authority is a co-operating body of the D.S.I.R. in pollution surveys, and all results are submitted for correlation and assessment to the Director of Observations, Fuel Research Station, Greenwich.

The trends of the last few years can be noted from the tables.

Table 25

	Total deposit in tons per sq. mile per year				
Deposit gauge	*1954*	*1955*	*1956*	*1957*	*1958*
Waterworks	263	187	201	156	172
Shaftesbury Crusade ..	273	226	206 (11 mths.)	180	193
Zoological Gardens ..	143	126	101 (11 mths.)	105	101 (11 mths.)
Blaise Castle	124	103	110 (10 mths.)	93	108
St. Anne's	—	—	—	156	188

Table 26

	Total rainfall in inches				
Rainfall	*1954*	*1955*	*1956*	*1957*	*1958*
Waterworks	41·4	23·7	25·7	27·2	34·5
Shaftesbury Crusade ..	38·7	22·5	24·1	28·1	34·4
Zoological Gardens ..	40·2	25·5	26·9	32·9	36·0
Blaise Castle	40·2	24·4	25·2	32·6	33·7
St. Anne's	—	—	—	27·6	36·5

Table 27

	SO_3 mgms. per 100 sq. cm. per day				
Sulphur Pollution	*1954*	*1955*	*1956*	*1957*	*1958*
Waterworks	1·94	3·0	2·03	2·24	2·06
Shaftesbury Crusade ..	2·29	2·75	2·07	2·40	2·04
Zoological Gardens ..	0·61	1·18	0·89	1·05	1·20
Blaise Castle	0·96	1·24	1·10	1·03	0·93
St. Anne's	—	—	—	1·17	1·00

It is gratifying to note significant improvements in most of the City sites particularly as compared with 1954 deposit figures. The Zoological Gardens and Blaise Castle sites have become almost stable at the 100 tons per sq. mile figure and the three other sites are all significantly within the 200 tons. The degree of sulphur pollution is also tending to fall although again the Zoo and Blaise sites seem to have stabilised at the 1·0 figure. We have no control over the rainfall figures! But clean air propaganda seems to be having some noticeable effects.

The data for the Kingswood area can be similarly summarised.

Table 28

	1954	*1955*	*1956*	*1957*	*1958*
Tons per sq. mile ..	183	116	109	78	88
Average SO_3 per mgm. per 100 sq. cm. per day	0·94	1·82	1·24	1·02	0·89
Rainfall in inches ..	40·9	19·9	22·7	27·6	30·0

The total deposition is somewhat higher than 1957 but the general improvement seems to be maintained and the sulphur pollution is certainly lower.

The continuous smoke and sulphur dioxide recording apparatus has been operative throughout the year both at Canynge Hall and at the Port of Bristol.

The Avonmouth Survey

The three sites in this area are at the Docks, Green Splot Farm and Barracks Lane. The latter site replaces T farm at which during the winter months it had become practically impossible to approach the apparatus which was surrounded by a veritable sea of mud! At Barracks Lane chickens and pigs only are the hazards!

The sulphur pollution in the area over a period of four years is given as SO_3 mgms. per 100 sq. cm. per day.

Table 29

	1958	*1957*	*1956*	*1955*
Avonmouth Dock	1·95	3·12	3·22	3·60
Green Splot	1·18	1·81	1·21	1·16
*T. Farm	0·91	0·97	1·12	0·71

* After 1st April 1957 this site was changed to Barracks Lane.

These figures briefly analysed show that the T. Farm (Barracks Lane) site is steady at the 1·0 figure. The Green Splot figure has reverted to a normal level about 1·2 after a steep rise in 1957, whilst the Avonmouth Dock site has markedly improved as far as sulphur pollution is concerned.

The rain gauges at Avonmouth Dock and Barracks are not examined in the conventional manner but are used to assess the zinc and fluorine pollution in the area. No attempt is made to determine the actual form of these depositions and the zinc and fluorine figures given below indicate total zinc and its compounds and total fluorine and its compounds respectively.

Table 30

	Tons per sq. mile	
	1958	*1957*
Avonmouth Dock		
Total zinc	1·82	2·13
Total fluorine	1·09	0·95
Rainfall in inches	33·13	28·9
Barracks Lane		
Total zinc	0·31	0·34
Total fluorine	0·19	0·31
Rainfall	30·04	29·4

The picture presented for the two years is a more or less stabilised pattern although the fluorine figure at Barracks Lane shows a distinct improvement whilst the total zinc at the Docks is likewise in the right direction.

The Portishead Survey

This survey began in 1949 and was continued at the request of Somerset County Council after the Power Station came under national control. The Portishead Authority decided to conduct their own examinations through a Consultant Analyst who took over as from 1st April 1958.

The information for the first quarter of the year was as follows:—

Table 31

	Average SO_3 mgm. per 100 sq. cm. per day	*Rain in inches*	*Deposit tons per sq. mile*
South Road	0·88	7·33	61·96
Meadow Farm	1·02	8·32	21·73
Portishead Dock	1·81	7·37	93·57
Power Station	1·33	—	—

The Dursley Survey

The Street Farm and Council Offices sites gave the following information for the year which is compared with previous years.

Table 32

	1958	1957	1956
	Average SO_3 mgm. per 100 sq. cm. per day		
Street Farm	0·49	0·81	0·85
Council Offices ..	0·75	0·93	1·07
	Rainfall in inches		
Street Farm	33·89	28·6	24·6 (11 months)
Council Offices ..	34·88	26·9	24·6
	Deposit in tons per sq. mile		
Street Farm	71·7	59·8	73·2 (11 months)
Council Offices ..	81·7	59·0	94·0

There is a distinct improvement in the levels of sulphur pollution at both sites but there is a deterioration to 1956 levels in respect of total deposited matter although it can be said that these increases are in part offset by significant rises in rainfall figures. It is of interest to note that of the 71·7 tons deposit per square mile in the year at Street Farm nearly thirty tons were accounted for in January, February and December, whilst at the Council Offices of the 81·7 tons, 40 tons were accounted from February to June. At this site also there were depositions of the order of eight tons in July and August. At both sites minimum figures were obtained in September, October and surprisingly November.

The Stroud Survey

The Gaumont Cinema and Girls' High School sites gave the following information for the year and comparison is made with earlier data.

Table 33

	1958	1957	1956
	Average SO_3 mgm. per 100 sq. cm. per day		
Gaumont Cinema ..	1·32	1·41	0·81
Girls' High School ..	0·76	0·95	1·21
	Deposit in tons per sq. mile		
Gaumont Cinema ..	154·9	115·9	171·7
Girls' High School ..	74·5	60·5	82·2
	Rainfall in inches		
Gaumont Cinema ..	34·6	27·9	24·1
Girls' High School ..	31·7	26·7	23·0

There is a continued improvement in the degree of sulphur pollution at the School site although at the Cinema site the trend is not so marked. Deposit figures for both sites have deteriorated as compared with 1957 although not as heavy as in 1956. Rainfall figures are nearly ten inches more than in 1956 and the heavier rain may account for the increased depositions.

The conditions at the Gaumont Cinema site showed remarkable variations from 44·9 tons in January to 5·8 tons in October. Indeed the extraordinary deposition of nearly 45 tons in one month has not been satisfactorily explained but it is worth noting that in the first five months of the year 98 tons of the 155 tons for the year were deposited.

Conditions at the Girls' School site are less liable to such fluctuations and we note that in February, May and September the deposition was of the order of 10 tons, whilst in August and October the figures were less than 3 tons.

The Thornbury Survey

Sites at Walning and Brynleaze Farms were established on 1st March 1958 and the *10 months survey* produced the following information.

Table 34

	Average SO_3 mgm. per 100 sq. cm. per day	*Deposit tons per sq. mile*	*Rainfall in inches*
Walning Farm	0·61	62·2	28·8
Brynleaze Farm	0·71	51·8 (9 months only)	17·6 (9 months only)

The sulphur figures have ranged thus—

	SO_3 mgm. per 100 sq. cm. per day
Walning Farm	0·21 in October to 1·67 in April
Brynleaze Farm ..	0·20 in June to 1·09 in November

and the deposit figures as follows:—

	Tons per square mile
Walning Farm	2·5 in June to 10·7 in December
Brynleaze Farm ..	3·5 in August to 8·3 in July

The Gloucester City Survey

The Lannet and Technical College sites are discussed in some detail in the Report on the work for the City of Gloucester (pages C102–3). The Lannet site was first established in August 1957 and the Technical College on 1st February 1958.

Finally reference is made to "our truly rural site" very kindly provided by Dr. Reynolds at Cross Road Farm, Fullingbridge, Wiltshire. The total rainfall was 24·0 inches and the deposit for the year 67·8 tons, of which 26·8 tons alone was deposited in August. No explanation was found for this excessive figure but in October another notably high figure was observed at 9·6 tons. These figures excluded it can be said that a rural area in this "tight little island" can be expected to produce depositions of the order of 40 to 50 tons per year.

PART X. SPECTROSCOPY

Throughout the year this section has been undermanned but has carried on the routine work of trace metal examinations under the direction of Mrs. J. K. Noyes. It has been the policy to give each and every student technician a period of training in this type of work and the four technicians so trained in the year have also helped to keep the section fully extended.

The development work which it was hoped Mr. Atherton would have conducted has regrettably not been done, as the Senior Spectroscopist left for Harwell at the end of 1957. Several unsuccessful attempts have been made to replace him and it would seem that the salary offered is not sufficiently attractive to secure the services of the right individual.

Spectrographic techniques are well established for lead and tin in foodstuffs and in recent years have enabled us to examine 800 to 1,000 commodities for these toxic metals. It should be possible to extend the work to the determination of copper and we hope zinc which at the moment have to be dealt with by much lengthier chemical techniques. Copper can be dealt with by the well established methods based on diethyl dithiocarbamate but there is still an acute need for a satisfactory organic reagent for zinc.

This section has in the past dealt with a certain amount of the toxiological work which comes our way but because of staff shortage this work has had to be diverted to senior staff, who are already hard pressed.

Canned goods, particularly fish from Pacific waters, have been examined for possible radioactivity so far without result. It must be confessed that the "monitoring" is crude and it is hoped to correct this deficiency in the coming year.

PART XI. OTHER ACTIVITIES

Matters mentioned in this section of the Departmental work illustrate the usefulness of a laboratory service other than in the field of actual bench work.

Lectures on the general work of the Department were given to the following organisations and schools—the Grammar School Science Club; the Colston Girls School; the Clifton High School for Girls; the Broadmead Contact Club; the Women's Fellowship, St. Cuthbert's, Brislington; the Bristol North Young Conservatives' Association, and at Falfield Prison.

Lectures of a more specific character were presented to veterinary students; public health inspectors; smoke inspectors; City and Guilds students together with a course of eight lectures in the Chemistry of Hygiene to D.P.H. students: In connection particularly with the latter course it might be mentioned that the University of Bristol gives lecture status to the two senior members of staff and recognised teacher status to the first and second assistants for work in the Public Health field.

Committee work included attendance at the following—the Scientific Advisory Committee for Further Education in the South-West; the Bristol and West Clean Air Council, the standing Conference via Atmospheric Pollution (London Meetings); the Weights and Measures Committee of Gloucester County, several meetings with Chief Officers, and a number of meetings in relation to Association of Public Analysts' affairs. These latter meetings are of the greatest value to the Department and to the food and drugs matters of the City. Valuable contacts have been established with other analysts and much useful work done in the formulation of standard codes of practice and allied matters. To be "in on the ground floor" in trade negotiations is a stimulating and valuable contact enabling your analyst to be in a position to give up to date advice to his committees on food and drug problems thereby materially lessening the possibilities involving this authority in potentially expensive litigation in problematic cases.

I would again express my appreciation and thanks to the Health Committee for their understanding of the value of this work and for the permission granted to attend meetings outside Bristol.

Five attendances at Court were required relating to watered milk, fat deficient Channel Island milk, a nail in a meat pasty, snail in milk and dirt and sacking fibres on bread.

Interest in Civil Defence affairs was fully maintained throughout the year and included eight meetings of the local Scientific Intelligence Officers at Henleaze Control. Your analyst is the Chief S.I. Officer for the City and three other senior members of staff are trained S.I.O's. All four members attended the Annual Regional Conference in June. It is worth recording that there was one scare in the radioactivity field in August which illustrates the danger of the spreading of rumours by irresponsible individuals. The affair began with a telephone call from C.I.D. Headquarters, certain ground sheets on sale at a store in the City were alleged to be radioactive; monitoring of the suspect sheets failed to confirm the allegation. The ground sheets were 1952 ex-Army Surplus and one side of each sheet was certainly of a shocking fluorescent pink shade presumably intended to add a bit of colour to Army life. The whole affair started when some crank, who was never traced, called at the store and actually asked to be supplied with radioactive ground sheets. The assistant stated that they certainly sold ground sheets but not the "radioactive" kind. The customer stated he would call again to see the manager but failed to do so. He appears to have informed Shepton Mallet C.D. Control (some 20 miles from Bristol) by telephone that a store in Bristol was selling radioactive ground sheets. Then the fun started finally involving a Police Inspector, four senior Civil Defence personnel and a number of reporters from both national and local press who departed eventually decidedly sceptical and quite convinced, I am sure, that those sheets were radioactive. Such is the far awe-inspiring power of dangerous rumour and hoaxing.

The Department was pleased to welcome a number of visitors during the year, among them some old friends and former members of staff and we hope a number of new-found friends whom we were able to help in some small way. Individual visitors include Dr. Pollard, Long Ashton Research Station; Dr. Cooper and Mr. Pearson and Mr. Downing of Thornbury R.D.C.; Dr. Gilbert, Medical Officer of Health for Melbourne, Australia; Dr. Gutierrez, Chile; Dr. Montoyia, Columbia, and Mr. Maurice, a Public Health Officer from Mauritius, whilst among old friends who visited us again for business reasons we welcomed Mr. Naish, Imperial Tobacco Company; Mr. Forty, Messrs. Carsons; Mr. Havas, Lucas & Co.; Mr. Wilson, Polysulphin Co. Ltd.; Mr. C. Lea, and Mr. Conroy, I.C.I.; Mr. Winnam, Ministry of Agriculture, Fisheries and Food; and Mr. Rout representing Spillers, Cardiff.

Mr. Taylor and I visited the B.O.C.M. laboratories at Avonmouth in March and accepted the kind invitation of Mr. Walker, the Chief Chemist, for a party from these laboratories to visit the B.O.C.M. Mills and Laboratories. This took place in May and was greatly appreciated by all who attended. Through Mr. Walker our thanks are due to B.O.C.M. for their hospitality and opportunity to see the manufacturing end of one of our jobs—the examination of Feeding Stuffs.

PORT HEALTH SERVICES

Medical Inspection and Sanitary Circumstances

Dr. D. T. Richards
Senior Medical Officer (Port)

SECTION I

Introduction

During the year 1958, the Port of Bristol maintained its position as a leading commercial terminal in the world's vast network of shipping routes. In the previous year, a recession in world trade provided a situation the adverse effect of which was quickly felt in shipping and port industries. There seemed every reason to expect that Bristol, in common with other major ports, would be faced with diminishing imports and exports, and that there might be a corresponding reduction in the number of ships using the port in 1958. Yet, although difficult world trading conditions prevailed throughout the year, Bristol's foreign import and export figures continued to rise, increasing by 419,798 and 38,143 tons respectively over the quantities for 1957, until they surpassed previous peace-time records with an import total of 3,840,997 tons and an export total of 132,999 tons.

The number of "foreign-going" arrivals increased by 251 to a total of 1,814 ships, compared with 1,563 in 1957. This figure is also a record for the port.

Of what interest, it may be asked, are trends like these to the Port Medical Officer whose main task is to prevent the importation of quarantinable disease? In the pages which follow is given a list of the principal ports from which ships arrive. This list changes in size and character yearly. From time to time, many of the ports included in it become reservoirs of infectious disease. Others serve as outlets to the sea from infected territories. But a more direct answer to this question may be obtained by glancing at the import figures for cargoes of tea for example, which are brought to the United Kingdom along trade routes sometimes associated with the occurrence of ship-borne smallpox. Tea imports into the Port of Bristol increased from 500 tons in 1939 to nearly 10,000 tons in 1957.

Throughout the year all vessels were inspected on arrival and kept under careful supervision whilst in port; 325 of these vessels, from ports and seaboards reporting dangerous infection, were singled out for detailed attention.

The provision of the Public Health (Ships) and the Public Health (Aircraft) Regulations, 1952, were fully enforced at all times. More than 65,000 incoming crew members and passengers came under the observation of the Port Health Section; 650 of these were discovered to be in need of medical attention on arrival and 26 were sent for treatment to the infectious diseases hospital. Detailed medical examinations, required under the provisions of the Aliens Order, 1953 were carried out at the seaport and at the airport. A suitable percentage of 615,000 tons of food was examined in accordance with legislation which protects supplies of imported food. In June, The Dark Smoke (Permitted Periods) (Vessels) Regulations came into operation, and measures were taken to bring these regulations into effect. These, and many other aspects of the work of the Port Health Department are fully described in the accompanying sections.

This Annual Report is prepared on the lines indicated in Form Port 20, as directed by the Minister of Health in a memorandum to Port Health Authorities. Many of the standing arrangements, fully described in the last Quinqennial Report (1955) have been omitted for the sake of brevity unless some important change has taken place.

TABLE A

Name of Officer	*Nature of appointment*	*Date of appointment* (*a*) *Original*	(*b*) *To present post*	*Qualifications*	*Any other appointments held*
Wofinden, Dr. R. C.	Port Medical Officer	29.9.47	1.2.56	M.D., B.S., D.P.H., D.P.A.	Medical Officer of Health
Roads, Dr. P. G.	Deputy Port Medical Officer	13.8.56	13.8.56	M.D., D.P.H.	Deputy Medica Officer of Health
Richards, Dr. D. T.	Sen. Asst. Medical Officer (Port)	1.11.38	13.1.47	L.R.C.P. (Lond.) M.R.C.S. (Eng.), D.P.H.	—
Rogan, Dr. E.	Assistant Medical Officer (Port)	1.7.56 *Left service 16.11.58*	1.7.56	L.R.C.P.I., and L.M., L.R.C.S.I. and L.M., D.P.H.	—
Macfarlan, Dr. A. M.	Assistant Medical Officer (Port)	2.2.53	1.12.58	M.A., M.B.Ch.	—
Redstone, Mr. F. J.	Chief Port Health Inspector	1.9.40	1.10.43	F.R.S.H., F.A.P.H.I.	Chief Public Health Inspector
Davies, E. I.	Senior Port Health Inspector	13.5.37	1.11.43	Certs. of R.S.I., S.I.E.J.B., R.S.I., Meat and Other Foods Cert. Testamur Welsh School of Medicine in Public Health and Hygiene; Master Mariner (Foreign-going)	—
Blampied, F. C.	District Public Health Inspector (Port)	1.12.48	1.1.57	Certs. of R.S.I., R.S.I. Meat and Other Foods. Smoke Inspector's Certificate R.S.I.	—
Fowler, C. H.	District Public Health Inspector (Port)	1.9.57	1.9.57	Cert. of R.S.I.	—
Lack, W. H. G.	District Public Health Inspector (Port)	1.9.57	1.9.57	Cert. of R.S.I. and R.S.I. Cert. in Tropical Hygiene	—
Bowen, W. T.	Assistant to Port Inspectors	27.1.36	27.1.36	Master Mariner's Cert.	—
Baston, C. W.	Assistant to Port Inspectors	13.2.38	13.2.38	—	—
Henley, F. C.	Senior Group Clerk	1.8.37	11.6.56 *From 12.6.58*	Intermediate Certificate Diploma Municipal Administration	—
Clevely, R. E.	Senior Group Clerk	20.3.44	11.6.56 *Until 26.6.58*	L.G.E.B. (Clerical) Examination	—

IN ADDITION:— The following Assistant M.O.'s undertake relief duties as required: Dr. A. M. Fraser and Dr. J. E. Kaye.

SECTION II

Amount of Shipping Entering the District During the Year

Comparative figures for foreign and coastwise arrivals, together with import and export tonnages during the last four years are shown in the following table. It is of interest to record that the greatest increase in the number of "foreign-going" arrivals occurred in ships within the range 4,000/5,000 net registered tonnage.

	Vessels normally trading		*Tonnage of foreign*	
Year	*Foreign*	*Coastwise*	*Imports and Exports*	
1958 ..	1,814	6,611	3,840,997	132,999
1957 ..	1,563	4,334	3,421,199	94,856
1956 ..	1,442	4,855	3,607,490	126,577
1955 ..	1,678	5,028	3,769,641	93,043

SECTION III

Character of Shipping and Trade During the Year

This is constant in character from year to year and fully dealt with in Tables (B) and (C) which follow.

TABLE B

Amount of Shipping Entering the District During the Year

			Number inspected		
Ships from	*Number**	*Tonnage**	*by the Medical Officer of Health*	*by the Public Health Inspector*	*No. of ships reported as having or having had during the voyage infectious disease on board†*
Foreign ports	1,814	4,761,243	606	1,739	21
Coastwise ..	6,611	1,367,163	—	813	—
Total ..	8,425	6,128,406	606	2,552	21

* Figures supplied by courtesy of the Port of Bristol Authority. (Discrepancy between number of vessels shown as arriving and number inspected in foreign section arises from differing classification of " Foreign " and " Coastwise " vessels as applied by the Port of Bristol Authority and the Bristol Port Health Authority).

† Excluding vessels having venereal disease on board.

TABLE C (a)

Passenger Traffic

		Seaport	*Airport*
Inwards	British	1,829	688
	Alien	248	680
Outwards	British	880	730
	Alien	149	532

TABLE C (b)

Cargo Traffic

PRINCIPAL IMPORTS

Commodities	*Tons*
Cocoa	24,570
Feeding stuffs for livestock	462,017
Fertilisers	236,780
Flour and other cereal products	21,039
Fruit: Bananas	36,466
Citrus	11,481
Dried	8,257
Other kinds	20,938
Grain: Barley	298,730
Maize	291,182
Wheat	421,089
Other kinds	179,890
Metals: Aluminium	44,661
Copper	11,063
Iron and steel	34,142
Other kinds	35,509
Molasses	82,886
Oilseeds and oilnuts	55,735
Ores	96,889
Paper	47,460
Petroleum: Spirit	310,245
Other kinds	637,374
Provisions: Butter	20,413
Cheese	8,038
Lard	4,353
Meat: Bacon and ham	1,648
Canned	8,373
Frozen	24,488
Other kinds	210
Sugar	3,182
Tea	7,615
Timber	124,085
Tobacco	30,037
Wines and spirits	9,773
Woodpulp	139,525
Other goods	90,854
Total foreign imports	3,840,997

PRINCIPAL EXPORTS

Carbon black	1,408
Chemicals	3,644
Clay	10,766
Cocoa and cocoa waste	3,246
Coke	4,215
Government stores	5,200
Metals: Iron and steel	19,067
Non-ferrous	—
Motor vehicles and parts	30,170
Ores	3,337
Petroleum	19,067
Strontia	2,116
Timber manufs.	2,116
Other goods	15,203
Total foreign exports	132,999

Note:—Figures supplied by courtesy of Port of Bristol Authority.

TABLE C (c)

Principal Ports from which Ships Arrive

Country	*Ports*
Algeria	Algiers, Oran, Bougie, Philippville.
Argentine	Buenos Aires, Bahia Blanca, Rosario, San Lorenzo.
Australia	Adelaide, Albany, Bunbury, Brisbane, Cairns, Freemantle, Geelong, Geraldton, Melbourne, Gladstone, Port Pirie, Sydney, Townsville.
Belgium	Antwerp, Bruges, Ghent, Zeebrugge.
Brazil	Bahia, Rio de Janeiro, Port Elegre, Santos.
British West Indies	Antigua, Barbados, Dominica, Kingstown, Montega Bay, St. Kitts, Trinidad.
Burma	Rangoon.
Canada	Botwood, Halifax, Kittimat, Montreal, New Westminster, Port Alfred, Port Churchill, Prince Rupert, Quebec, St. John, Sorel, Three Rivers, Toronto, Vancouver.
Canary Islands	Las Palmas.
Ceylon	Colombo.
Cyprus	Famagusta, Limassol, Nicosia.
Cyrenaica	Tripoli.
China	Shanghai.
Denmark	Copenhagen, Esburg, Frederikssund, Thyboron.
Egypt	Alexandria, Port Said.
Finland	Helsingfors, Kotka.
France	Abbeville, Bordeaux, Boulogne, Deauville, Dieppe, Dunkirk, Le Havre, La Rochelle, Libourne, Marseilles, Nantes, Rouen, Tonnay-Charente, Treport, St. Malo, St. Valery, Vannes.
French Cameroons	Tiko Is.
French Equatorial Africa	Dakar, Port Gentil.
Gambia	Bathurst.
Germany	Bremen, Bremerhaven, Emden, Friedrichshaven, Hamburg, Stettin, Wismar.
Ghana	Accra, Takoradi.
Greece	Patras, Piraeus, Zante.
India	Bombay, Calcutta, Chalna, Cochin, Mangalore, Vizagapatam.
Indonesia	Sourabaya, Tegal.
Iran	Abadan, Basra, Bahrein, Bushire.
Israel	Jaffa.
Italy	Bari, Genoa, Livorno, Naples, Palermo, Salerno, Cagliari, Civitavecchia, Venice.
Japan	Kobe, Yokohama, Tokyo.
Jordan	Aqaba.
Jugoslavia	Rijeka, Split.
Kenya	Mombasa.
Kuwait	Mana al Ahmadi.
Libya	Benghazi.
Malay States	Penang Is., Singapore.
Mexico	Coatzacoalcos, Tampico.
Morocco	Agader, Ceuto, Casablanca, Saffi, Sousse.
Mozambique	Beira, Mozambique.
Netherlands	Amsterdam, Delfzyl, Dordrecht, Rotterdam, Spisk.
Netherlands West Indies	Aruba, Curacao.
Nigeria	Lagos, Sapele, Port Harcourt.
Nauru Islands	same.
New Zealand	Aukland, Port Chalmers, Lyttleton, Napier, Timaru, Wellington.
Norway	Aalesund, Bergen, Floro, Kristiansund, Oslo, Skein, Havanger, Stavenger, Tredestrand, Trondheim.
Pakistan	Chittagong, Karachi.
Persian Gulf	Bahrein Is., Ras Tanura.
Portugal	Lisbon, Oporto, Leixors, Vila Real.
Puerto Rico	San Juan.

TABLE C (c) contd.

Country	*Ports*
Rumania	Constanza.
Poland	Gdynia.
Portugese East Africa	Nacala.
Sierra Leone	Freetown.
South West Africa	Walvis Bay.
Spain	Almeria, Barcelona, Bilboa, Cartagena, Huelva, La Vera, Tarragona, Seville, Valencia.
Sudan	Port Sudan.
Sweden	Gelfe, Gothenburg, Iggesund, Kramfors, Malmo, Nyhammar, Stockholm, Sundsvall.
Syria	Latakia.
Tanganyika	Dar-es-Salam, Zanzibar.
Tunisia	Sfax, Tunis.
Turkey	Iskanderun, Instanbul.
Uruguay	Puerto la Cruz, Montevideo.
Union of South Africa	Cape Town, Durban, East London, Port Elizabeth.
Union of Soviet Socialist Republics	Leningrad, Kaliningrad, Novorossik.
Tasmania	Hobart.
United States of America	Baltimore, Baton Rouge, Beaumont, Boston, Boco Grande, Corpus Christi, Freeport, Galveston, Houston, Los Angeles, Mobile, New Orleans, Newport Mews, New York, Norfolk, Philadelphia, Port Arthur, Port Jacksonville, San Francisco, Tacoma, Tampa, Texas City, Wilmington, Chicago.
Venezuela	Punta Cardon, Caracus.
Yugoslavia	Sibenik.

SECTION IV

Inland Barge Traffic

The number of craft and tonnage for INLAND BARGE TRAFFIC is included in the Coastwise Traffic by the Port of Bristol Authority

Places served by the traffic:

Banbury
Barry
Bridgewater
Cardiff
Frampton
Gloucester
Lydney
Newport
Sharpness
Stourport
Swansea
Upton
Worcester

SECTION V

Water Supply

Source of supply for:—

(*a*) The District.
(*b*) Shipping.

These were described in my report for 1955 and are unchanged.

Complaints concerning drinking water supply were received from only two ships during the year. Three samples were drawn in each case; all were reported to be chemically and bacteriologically satisfactory.

A further four routine samples were taken from ships in port. Two were found to have a high bacterial count, and cleansing and chlorination of the storage tanks were carried out.

For the greater part of the year the water boat at the Bristol City Docks has not been required for the supply of drinking water to ships. Routine samples will be taken should the water boat resume this service.

Drinking Water Samples from Ships

Name of ship	*Result*
s.s. "Fresno City" (2 samples)	Satisfactory
m.v. "Badminton"	Satisfactory
t.b. "Medway"	Unsatisfactory
m.v. "Dahlia"	Satisfactory
m.v. "St. Vincent"	Satisfactory
m.v. "Salcombe"	Unsatisfactory

SECTION VI

Public Health (Ships) Regulations, 1952

(*1*) *List of Infected Areas* (*Regulations*) (*6*)

This list is prepared and brought up to date monthly. It summarises the information contained in the World Health Organisation's Weekly Epidemiological Record of Quarantinable Diseases prepared for the guidance of port health authorities, and is regularly circulated as follows, any important addition or amendment being subsequently forwarded during the month as a separate memorandum:—

H.M. Customs and Excise (Seaport and Airport)
H.M. Immigration Officer (Seaport and Airport)
The Haven Master (for distribution to pilots)
The Manager, Lulsgate (Bristol) Airport
Medical Officers, Shipping Federation
Medical Officers, Special Treatment Centres
The Docks Superintendent
Waterguard Superintendent
Pilotage Collector, Pill

(*2*) *Radio Message*

(*a*) Arrangements for sending permission by radio for ships to enter the district (Regulation 13).

(*b*) Arrangements for receiving messages by radio from ships and for acting thereon (Regulation 14 (1), (a) and (12).

These were described in the 1955 Annual Report and are unchanged.

(*3*) *Notifications otherwise than by Radio* (*Regulation 14* (*1*) (*b*)

Arrangements for receiving notification otherwise than by radio and for acting thereon.

These are unchanged.

(*4*) *Mooring Stations* (*Regulations 22 to 30*)

Situation of stations, and any standing directions issued under these Regulations.

The details given in the quinquennial report are unchanged.

(*5*) *Arrangements for:—*

(*a*) Hospital accommodation for infectious diseases (other than smallpox).
(*b*) Surveillance and follow-up of contacts.
(*c*) Cleansing and disinfection of ships, persons, clothing and other articles.
Unchanged.

SECTION VII

Smallpox

1. Cases and suspected cases of smallpox occurring within the district are sent to the smallpox wing of the Ham Green Infectious Diseases Hospital, Pill, near Bristol.

2. Ambulance facilities are provided by the Ambulance Service of the Bristol Corporation, which is administered by the Medical Officer of Health. The vaccinal state of the ambulance crews is satisfactory and subject to continuous review.

3. One consultant is available in the event of smallpox; he is Dr. J. Macrae, Medical Superintendent, Ham Green Hospital, Pill, near Bristol.

4. Facilities for the laboratory diagnosis of smallpox are available in conjunction with the Preventive Medicine Laboratories (University of Bristol).

SECTION VIII

Venereal Disease

There is no clear evidence that the incidence of venereal diseases amongst seamen has appreciably declined within recent years. A high proportion of those included in the column headed "Non-V.D." in the table below had, in point of fact, been inadequately treated for symptoms typical of gonorrhoeal urethritis whilst at sea. A wide variety of antibiotic preparations seem to be available for this purpose. When these men are subsequently examined ashore, bacteriological evidence of gonorrhoea is missing, and residual symptoms usual remain unspecified.

Full information concerning the situation, and giving the hours during which the Medical Officer is in attendance at the Venereal Disease Centres at Avonmouth and Bristol Docks, is given to the crew of every vessel entering port. This information is contained in handbills, including a sketch map, which are freely distributed to each ship. When indicated, in-patient treatment under the direction of the venereal diseases consultant is available at the Ham Green Infectious Diseases Hospital.

The Port Medical Officers, who are usually the first to ascertain venereal conditions, act in an additional capacity as medical officers to the Avonmouth Venereal Diseases Centre. This arrangement works very well. Co-operation with the medical officers of the Shipping Federation is excellent.

Year	*Syphilis*	*Chancroid*	*Lympho-granuloma*	*Gonorrhoea*	*Non V.D.*	*Total*
1953 ..	26	6	6	142	277	457
1954	30	20	3	112	277	442
1955	39	13	3	135	278	468
1956	27	16	2	116	252	413
1957	20	13	5	123	254	415
1958	22	15	3	134	245	419

SECTION IX

Cases of Notifiable and Other Infectious Diseases in Ships and

SECTION X

Table "D" is self-explanatory.

TABLE D

Disease	*Category and number of cases during the year*							*Number of ships concerned*
	Cases landed from ships from foreign ports		*Cases which have occurred on ships from foreign ports but have been disposed of before arrival*		*Cases landed from other ships*		*Total*	
	Pass.	*Crew*	*Pass.*	*Crew*	*Pass.*	*Crew*		
Chicken Pox ..	—	1	—	4	—	—	5	5
Dysentery ..	—	2	—	—	—	—	2	2
Influenza	—	10	—	—	—	—	10	9
Poliomyelitis ..	—	—	—	2	—	—	2	1
Influenza pneumonia	—	1	—	—	—	—	1	1
Pulmonary T.B. ..	—	3	—	—	—	—	3	3
Totals ..	—	17	—	6	—	—	23	21

There is no record of the occurrence of any confirmed case of malaria during the year. A striking decline in the number of cases of malaria ascertained on vessels trading with African ports was first commented upon in my report for 1957.

The following case history is of interest:—

M.V. "Tagatay"

The vessel arrived at Avonmouth from Oslo on the 16th October 1958. On October 19th one of the apprentices sickened with a fever, and later that day complained of intense irritation of the skin, most pronounced near an area where he had been vaccinated on the arm six days earlier in Oslo. On the 20th October he developed a generalized papular rash. Later in the day he was removed to the isolation hospital for a period of observation. The ship sailed on the following tide for the U.S.A.

The opinion of the consultant was obtained before the apprentice was removed from the ship. On clinical grounds alone the possibility of variola could not be entirely disregarded, although he had been vaccinated in infancy, re-vaccinated on July 17th, 1958 and again on October 13th.

Material from the patient's rash was sent away for examination. A diagnosis of smallpox was excluded on October 24th. He was considered to be suffering from varicilla, complicated with rash elements of a vaccinial type.

SECTION XI

Measures Taken Against Ships Infested with or Suspected for Plague

1. All vessels from infected or suspected ports are required to attach efficient rat guards to the mooring ropes.
2. Suitable lengths of tarred hessian are wrapped around moorings outside the leads when the standard types of rat guards are not available.
3. Arrangements are made for the fumigation of the vessel with hydrogen cyanide when this is advisable.

SECTION XII

Measures Against Rodents in Ships from Foreign Ports

(1) Routine measures of inspection and rodent control in ships, described in detail in the Annual Report for 1955, were continued throughout the year.

(*a*) Rat evidence was discovered in only 67 of the 1,814 vessels trading with foreign ports. Of these, 48 had very slight traces of activity, 10 had slight evidence of infestation, 8 were infested to a moderate degree, and only 1 ship was found with moderate to pronounced infestation. Forward notices were sent to terminal ports concerning 5 of the moderately infested ships. Replies were afterwards received that a further 54 rats had been destroyed in three of these ships.

It has been the practice during the year to recommend to the Masters of slightly infested ships the use of ready mixed "Warfarin". This substance is particularly useful as a poison bait when the cargo holds are partially loaded, or when the ship is in ballast. Several of the Masters have carried out these recommendations and as some of the ships are regular traders it became possible later on, to assess results. These were encouraging, and showed that if early and thorough treatment of this kind is carried out, the "build up" of an infestation is prevented, and a subsequent costly and delaying fumigation may be avoided.

The total number of rats destroyed on ships during the year was 128, and 104 of these were sent for examination to the laboratory, where they were found to be free from plague infecting organisms.

The table below is an interesting one, and illustrates the dramatic fall in the rat population on ships carrying general cargo during the past few years, and also shows convincingly that every year most of the rats are obtained from a few ships with moderate or pronounced infestation, *e.g.* during 1958 more than threequarters of the total rats recovered came from only four ships which entered the port.

No. of rats per Ship	*1958 No. of Ships*	*Total rats recovered*	*1957 No. of Ships*	*Total rats recovered*	*1956 No. of Ships*	*Total rats recovered*
1– 5	10	31	4	13	12	39
6–10	—	—	3	23	4	38
11–15	—	—	2	23	2	23
16–20	2	35	1	18	1	19
21–25	1	25	—	—	2	47
26–30	—	—	1	29	—	—
31–35	—	—	1	34	1	33
36–40	1	37	—	69	—	—
41–70	—	—	1	—	1	61
Totals ..	14	128	13	209	23	260

In accordance with Article 52 of the International Sanitary Regulations, 138 Deratting Exemption Certificates and 8 Deratting Certificates were issued during the year after appropriate measures were taken.

(*b*) *Coastwise Vessels*

Coastwise traders were inspected regularly and were found to be remarkably free from rats and mice. In view of the fact that these small ships visit so many ports and carry such varied cargoes, many of which are transhipments from abroad, this freedom from rodents must result from improved conditions on foreign-going ships and the effective control of black rats at the ports.

Rodent Control Certificates were issued to 7 coastwise vessels during 1958.

(*c*) *Inland Water Craft*

Many of the inland water craft trading with the Port of Bristol are bulk oil carriers. Periodic inspections have shown that these are always rat free. There is very limited harbourage and no food for rodents on this type of vessel.

By reason of their design, and the type of cargo commonly carried, propelled and dumb barges are a more likely source of trouble. Continued searching, trapping and other measures of control have had the desired results, and only three barges were in need of special attention during the year.

The seven floating grain elevators permanently stationed at the port have been systematically searched at regular intervals. Poison bait was laid at the first sign of rat infestation. On each occasion this was effective.

(2) *Arrangements for the Bacteriological or Pathological Examination of Rodents, with Special Reference to Rodent Plague, including the number of Rodents sent for Examination during the Year*

A routine proportion of all rats recovered is sent for examination for evidence of *B. pestis* to the University of Bristol Laboratories, Canynge Hall, Clifton. Of the 128 black rats obtained from ships and inland water craft, 104 (82 per cent) were sent to the laboratory for examination. All were reported to be free from infection with plague.

(3) *Arrangements in the District for Deratting Ships, the Methods used, and, if done by a Commercial Contractor, the Name of the Contractor*

The deratting of ships is done by commercial contractors who use hydrogen cyanide and sodium fluoro-acetate. The undermentioned firm carried out work at this port during 1958:

London Fumigation Co. Ltd., London.

TABLE E

Rodents Destroyed During the Year in Ships from Foreign Ports

Category	*Number*
Black rats	128
Brown rats	—
Species not known ..	—
Sent for examination ..	104
Infected with plague ..	—
Mice	—

TABLE F

Deratting Certificates and Deratting Exemption Certificates Issued during the year for Ships from Foreign Parts

No. of Deratting Certificates issued						
After fumigation with					*Number of De-ratting Exemption Certificates issued*	*Total Certificates issued*
H.C.N.	*Other fumigant*	*After trapping*	*After poisoning*	*Total*		
5	1	—	2	8	138	146

SECTION XIII

Inspection of Ships for Nuisances

During the course of the year 3,842 visits and revisits were made to "foreign-going" and coastwise vessels. A total of 504 defects were found; 374 of these were remedied at this port and 19 forward notices were sent to Port Health Authorities of the terminal ports in respect of the remaining 130 defects. An analysis of these defects is given in the accompanying tables.

TABLE G

Inspection of Ships for Nuisances

Nature of defects and inspections	*No. of inspections carried out*	*Notices served*			*No. of defects found*	*Result of serving notices*	
						No. of defects	
		Statutory	*Informal*	*Forward (PHAs/ M.O.T.)*		*Remedied*	*Not remedied*
Original construction	3,103	—	72	14	17	9	8
Structural wear and tear					209	140	69
Dirt, vermin, etc.					203	159	44
Totals ..	3,103	—	72	14	429	308	121

Three "foreign-going" British ships, all more than 30 years old and each employing "special ratings" were found to have quarters for these men which were not up to the minimum standard required by the Merchant Shipping (Crew Accommodation) Regulations, 1953. The Ministry of Transport Surveyor was informed and he gave an assurance that two of these ships had been sold to be broken up, and that the third, after completing another voyage would also be disposed of in this manner.

All nuisances due to wear and tear, dirt and vermin, were remedied on request. For the first time in several years, the number of bed bug infestations reached double figures. In each case treatment was successfully carried out with an insecticidal lacquer. The 12 infestations were discovered in 8 foreign owned and 4 British ships. Common to all was the fact that the infested quarters were occupied by coloured ratings. Bugs are usually brought on to a ship in a man's personal belongings, and it was of interest to learn that some West African seamen had been buying up old bed frames from second hand dealers and junk shops for the purpose of disposing of them later at West African ports. The extent to which this trade has been carried out is not known, but it is quite possible that these bed frames were verminous and could have been the source of some of the infestation referred to above.

Hygiene of Crews' Spaces

Vessels Trading Coastwise and Foreign

	British		*Foreign*		
	s.s.	*m.v.*	*s.s.*	*m.v.*	*Totals*
No. of revisits to vessels in dock by Inspectors	794	1,352	445	1,251	3,842
No. of vessels reported defective ..	97	73	13	17	200
No. of vessels—defects remedied ..	77	57	9	12	155

		Defects					
		Original Construction		Wear and Tear		Dirt and vermin	
Nationality	No. of Ships Inspected	No. of Ships	No. of defects	No. of Ships	No. of defects	No. of Ships	No. of defects
British s.s.	359	3	6	31	89	74	125
m.v.	1,019	5	9	31	114	50	80
Foreign s.s.	265	1	2	4	6	15	31
m.v.	909	—	—	2	4	19	38
Totals	2,552	9	17	68	213	158	274

	No. of Defects			No. of Defects reported by Forward Notices, etc., to:—			No. of Ships and Nationality	
Nature	Found	Rem'd	Not rem'd	Other PHAs.	M.O.T. Surv'r	Owner Master	British	Foreign
Original construction	17	9	8	1	1	6	8	1
Wear and tear . .	213	142	71	13	1	59	62	6
Dirt, vermin and other causes	274	223	51	5	—	80	124	34
Totals . .	504	374	130	19	2	145	194	41

SECTION XIV

Public Health (Shell Fish) Regulations 1934 and 1948

No changes have occurred during 1958.

SECTION XV

Medical Inspection of Aliens

The organisation of this work is unchanged.

The provisions of the *Aliens Order, 1953*, are in full operation at the seaports and at the Lulsgate (Bristol) Airport. The following medical officers hold warrants of appointment as Medical Inspectors of Aliens:

Dr. R. C. Wofinden, Medical Officer of Health
Dr. P. G. Roads, Duputy Medical Officer of Health
Dr. D. T. Richards, Senior Assistant Medical Officer (Port)
Dr. E. Rogan, Assistant Medical Officer of Health (Port)
(until 16th November, 1958)
Dr. A. M. Macfarlan, Assistant Medical Officer of Health (Port)
(from 1st December, 1958)
Dr. A. Fraser, Assistant Medical Officer of Health
Dr. J. E. Kaye, Assistant Medical Officer of Health

Medical Inspection of Aliens

Annual Return of the Medical Inspector of Aliens for 1958

	SEAPORT				*AIRPORT*			
	Total	*No. inspected by Medical Inspector*	*No. subjected to detailed examination by the Medical Inspector*	*No. of Certificates issued*	*Total*	*No. inspected by Medical Inspector*	*No. subjected to detailed examination by the Medical Inspector*	*No. of Certificates issued*
(a) Total number of aliens landing at the Port	248	101	44	—	680	82	2	—
(b) Aliens refused permission to land by Immigration Officer	10	—	—	—	—	—	—	—
(c) Total aliens arriving at the Port	258	101	44	—	680	82	2	—

	INWARDS		*OUTWARDS*	
	Seaport	*Airport*	*Seaport*	*Airport*
Total number of vessels/aircraft carrying alien passengers ..	125	167	72	152
Number of vessels/aircraft dealt with by the Medical Inspector	50	16	—	—

SECTION XVI

Arrangements for the Burial on Shore of Persons who have Died on Board Ship from Infectious Disease

No changes have occurred during 1958.

SECTION XVII

Other Matters

(1) *Measures against Rodents on Docks, Quays, etc.*

Throughout the last decade a continuous and methodical offensive has been directed against the rat in transit sheds, warehouses, mills and granaries within the boundaries of the Port Authority's undertaking. The stage has now been reached when even moderate signs of local infestations are seldom observed. These small centres of population can quickly be dealt with. Today the rat is rarely seen in daylight. This satisfactory outcome has minimised very considerably the wasteful and costly depredations of these pests; and will be maintained if the owners of premises continue to co-operate by notifying the Port Health Section when fresh signs of rodents are discovered, and particularly if they ensure that the stacking of foodstuffs, especially of bagged animal food, is arranged so that all parts are accessible for inspection and treatment.

During 1958, 80 brown and 96 black rats were destroyed by trapping and baiting on docks premises, 48 being sent to the laboratory and found to be free from plague organisms. It is reasonable to suppose that the actual number of rats killed during the year was much greater than 176, as many rats are not recovered after taking poison bait. Nevertheless, this total, which is the lowest ever recorded, is in keeping with the trends observed during the past few years as shown in the following table:

Category	*1958*	*1957*	*1956*	*1955*
Black rats	96	234	346	426
Brown rats	80	112	203	127
Total	176	346	549	553
Sent for examination	48	141	95	120
Infected with plague	—	—	—	—
Mice	2	11	15	33

Food Inspection

Imported food products such as frozen, canned and cured meats, dairy products, flour cereals, cocoa beans, canned and other kinds of fruit, showed an aggregate increase of 20,600 tons above the figure for the previous year. However, the total quantity of imported foods, at 615,000 tons was down by 36,000 tons; this was due to an appreciable reduction of wheat cargoes, which were 49,000 tons less than in 1957.

Every attention has been given to the inspection and sampling of consignments of food discharged at the port, and 617 samples of 68 varieties of food from 26 different countries, plus 787 samples of frozen eggs were sent to the laboratory for chemical and bacteriological analysis. In the table giving particulars of these samples it will be seen that the vast majority of them were satisfactory. This is a very reassuring indication that, on the whole, prior consideration is given in the countries of origin to the importance of producing a pure and sound product for export to this country.

Miscellaneous Foods (Condemned)

Description	*Reason for condemnation*	*T.*	*C.*	*Q.*	*lb*
Butter	Rancid		5	1	14
Cereals	Insect infested		3	1	9
Cheese	Mould and oil contamination			1	4
Coconut (desiccated)	Insect infested and mouldy	1	4	0	9
Dried fruit	Wet damaged, insect infested, mouldy, rodent contaminated	1	7	1	12
Dried vegetables	Insect infested		2	1	0
Flour	Insect infested	1	18	1	16
Lard	Rancid, crushed and dirt contaminated	1	9	2	6
Milk powder	Wet damaged and contaminated	1	19	2	0
Oats	Oil and mould contaminated	11	7	1	12
Potatoes	Decomposed	1	12	2	0
Rice	Insect infested		6	1	16
Tea	Mould, oil and water contaminated	1	6	2	10
Tomatoes (fresh)	Damaged				26
Wheat	Decomposed, mouldy, oil and wet contaminated	47	3	3	16
	Total weight	70	17	0	23

Canned Goods (Condemned)

Description	*Qty. Tins*	*Reason for condemnation*	*T.*	*C.*	*Q.*	*lb.*
Canned fruit	6,138	Blown, crushed, burst, pierced, rust holed	7	18	3	23
Canned meat	323	Blown, crushed, burst, pierced, rust holed		7	1	13
Canned tomatoes	6,799	Blown, crushed, burst, pierced, rust holed	3	2	3	13
Canned tomato juice	93	Blown, burst and crushed		5	1	25
Canned fruit juice	105	Blown, burst, crushed, rust		2	2	25
Canned fish	132	Blown, burst, crushed, rust			3	21
Canned tomato purée	6	Blown			2	20
Canned jam	30	Pierced, crushed and burst		1	1	16
Canned tomato paste	23	Burst, crushed and leaking		2	0	0
Canned peas	34	Rust holed and blown		1	0	16
Canned tomato soup	10	Rust holed and burst			1	4
Canned vegetable soup	7	Burst, crushed, rust holed				24
Total tins	13,700	Total weight	12	4	0	4

Meats (Condemned)

Description	*Reason for condemnation*	*T.*	*C.*	*Q.*	*lb.*
Lamb trimmings	Brine contaminated, foul water and dirt contaminated		4	1	26
Frozen sausages	Crushed and dirt contaminated				2
	Total weight		4	2	0

Particulars of Foods Detained for Re-exportation or Re-conditioning at Local or Other Food Depots

Description of food	*Reason for detention*	*Tons (approx.)*
Butter	Wet damaged and dirty containers	2
Canned fruit	Crushed and burst, rust holed and blown tins	46
Canned tomatoes	High percentage of blown tins	45
Canned meats	Wet damaged and rusty tins	6
Dried fruit	Wet damaged and fermenting	3
Dried milk powder	Mouldy and wet damage	15
Desicated coconut	Mouldy, rancid and insect infested	29
Flour	Wet damage and mouldy	47
Lambs	Dirt contamination	14
Lard	Heated, rancid and contaminated	3
Rice	Mouldy and insect infested	8
Tea	Wet damaged, mouldy and contaminated	30
	Total weight	248

Samples of Imported Foodstuffs taken during 1958 and sent to the Analyst or Bacteriologist for Examination

No. of Samples	*Description of commodity*	*Country of origin*	*Exam. for**	*Result*
3	Apples (fresh)	Italy	C	Satisfactory
9	Apricots (canned)	South Africa	CB	,,
1	,, ,,	Australia	C	,,
7	,, (dried)	South Africa	P	,,
5	,, (pulp)	Spain	P	,,
2	,, (jam)	South Africa	P	,,
2	Artichokes	Spain	BC	,,
2	Asparagus	South Africa	C	,,
1	,,	France	C	,,
2	Bacon	Ireland	S	,,
1	Baker's Shine	Holland	C	,,
2	Beans (stringless)	South Africa	BC	,,
28	Beef Steak (caserole)	Australia	BC	,,
2	,, ,, ,,	South Africa	BC	,,
2	Celery hearts	Italy	BC	,,
6	Cherries (canned)	Italy	C	,,
1	,, (glazed)	Italy	P	,,
1	,, ,,	France	P	,,
1	Cheese	Swiss	Q	,,
1	Chicken (canned)	Italy	C	,,
20	,, ,,	Holland	BC	,,
9	Cockles (brine and vinegar)	Holland	P	,,
24	Corned beef	Argentine	BC	1 Unsatisfactory
10	Crab meat	Japan	BC	Satisfactory
1	Crab paste	Germany	C	,,
3	Dried fruit (mixed)	South Africa	P.	,,
1	Cherry jam	Italy	P	,,
10	Currants	Greece	P	,,
9	,,	Australia	P	,,
757	Eggs (whole frozen)	Australia	B	13 Unsatisfactory
24	Eggs Albumen (frozen)	Holland	B	Satisfactory
1	Egg yolk (plain)	Ireland	B	,,
6	Eggs (whole frozen)	Holland	B	,,
1	Figs	Turkey	P	,,
2	Figs (green in syrup)	Italy	C	,,
2	Fig (paste)	Turkey	P	,,
3	Fruit Salad	South Africa	C	,,
1	,, ,,	Australia	C	,,
1	,, ,,	U.S.A.	C	,,
3	Grapes (canned)	South Africa	C	,,
2	Grapefruit (canned)	Israel	C	,,
2	,, ,,	Holland	C	,,
1	,, (juice)	Israel	C	,,
2	,, ,,	South Africa	C	,,
2	Guaves	South Africa	C	,,
2	Ham (chopped)	Holland	BC	,,
1	Jellies (almond)	Ireland	C	,,
1	,, (raspberry)	Ireland	C	,,
3	Loganberries	Australia	C	,,
2	Lamb tongue	Australia	BC	,,
2	,, ,,	New Zealand	BC	,,
6	Luncheon meat	Australia	BC	,,
2	,, ,,	Denmark	BC	,
2	,, ,,	Yugoslavia	BC	,,
4	,, ,, (pork)	Denmark	BC	,,
9	,, ,, ,,	Belgium	BC	9 Unsatisfactory
2	Meat extract	South Africa	BC	Satisfactory
16	,, loaf	Australia	BC	,,
3	Milk chocolate powder	Ireland	C	,,
1	Mussels	Ireland	P	,,
8	Oranges (fresh)	Spain	P	,,
3	,, ,,	Palestine	P	,,
1	,, Mandarin	Spain	P	,,
9	,, ,, (canned)	Japan	C	,,
1	,, ,, ,,	China	C	,,

No. of Samples	*Description of commodity*	*Country of origin*	*Exam. for**	*Result*
1	Orange (juice)	Israel	C	Satisfactory
1	Ox tongue	Holland	B	,,
1	Paw Paws	South Africa	C	,,
2	Peaches (canned)	U.S.A.	C	,,
5	,, ,,	Argentine	C	,,
13	,, ,,	South Africa	C	,,
5	,, ,,	Australia	C	,,
1	,, (dried)	Australia	P	,,
1	,, ,,	South Africa	P	,,
2	Pears (canned)	South Africa	C	,,
2	,, ,,	Italy	C	,,
2	,, ,,	Canada	C	,,
1	,, ,,	Holland	C	,,
1	,, (dried)	U.S.A.	P	,,
4	Peas (canned)	South Africa	C	,,
4	,, ,,	New Zealand	C	,,
6	Peel (mixed dried)	Australia	P	,,
1	,, ,, ,,	South Africa	P	,,
4	Pilchards	T/S U.K. port	BC	,,
20	,,	South Africa	BC	,,
2	Pimentoes	Spain	BC	,,
13	Pineapples (canned)	South Africa	CB	,,
6	,, ,,	Malaya	BC	,,
1	,, ,,	Kenya	C	,,
1	,, ,,	Australia	C	,,
1	,, ,,	China	C	,,
4	,, (juice)	South Africa	C	,,
2	Pork brawn	Denmark	BC	,,
3	Pork kidneys	Holland	BC	,,
2	Pork and veal steakettes	Holland	BC	,,
16	Prunes	U.S.A.	P	,,
4	Raisins	South Africa	P	,,
1	,,	Greece	P	,,
1	,,	U.S.A.	P	,,
2	Raspberries	Holland	BC	,,
4	Ravioli	Italy	BC	,,
38	Salmon (canned)	Japan	BC	,,
6	,, ,,	Canada	BC	,,
4	Sardines (canned)	Portugal	BC	,,
3	Sago	Malaya	Con.	,,
2	Sauce	Italy	P	,,
2	Sausages (pork)	South Africa	BC	,,
6	,, (skinless)	Ireland	BC	,,
2	Spaghetti	Denmark	BC	,,
8	Steak (stewed)	Ireland	BC	,,
13	Steakettes (frozen)	Ireland	BC	9 Unsatisfactory
2	Steak (stewed and mushroom)	Australia	BC	Satisfactory
2	Stew (Irish)	Australia	BC	,,
1	Strawberries (canned)	Czechoslovakia	C	,,
3	,,	Holland	BC	,,
6	Sweetcorn	South Africa	BC	,,
4	Sultanas	Greece	P	,,
1	,,	South Africa	P	,,
1	,,	Australia	P	,,
1	Tea	T/S U.K. port	Con.	,,
77	Tomatoes (canned)	Italy	BC	18 Unsatisfactory
5	,, (juice)	Italy	C	Satisfactory
1	,, ,,	South Africa	C	,,
4	,, (purée)	South Africa	BC	,,
2	,, ,,	Italy	C	,,
4	Tuna fish	Australia	BC	,,
9	Tapioca	Malaya	Con.	,,
3	,,	Siam	Con.	,,

**Key*	*Examined for:*
B	Bacterial contamination.
C	Chemical contamination.
P	Preservatives.
Con.	Contamination.
Q	Quality and moisture.

Imported Italian Canned Tomatoes

As in previous annual reports, reference must again be made to the unsatisfactory state of several consignments of Italian canned tomatoes. Included in these were a large number of "blown" and "springer" tins. In each case a complete examination was carried out and over 6,000 tins were rejected and destroyed.

It would appear that our previous approach to consignees, requesting them to ask exporters to draw the attention of the canning companies to the need to remedy an apparent defect in some stage of the canning process, has not produced the desired results. It may be that this is due to the difficulty in tracing these canning firms, as most of the brands that are found to be troublesome have no canner's mark stamped on the tins. It may be more than a coincidence that in the few instances where tins are stamped the consignments are in an excellent condition.

If shipments to other United Kingdom ports are in a comparable state, then the expense of reconditioning, plus the loss sustained by the destruction of so many tins must amount to a considerable sum of money. It therefore seems strange that no effective action has been taken in this matter.

Frozen Whole Eggs

Bacteriological analysis of 757 samples of a consignment of 14,890 × 28 lb. tins of Australian frozen whole egg showed that 13 batches (1938) were infected with food poisoning organisms. These were detained until satisfactory arrangements were made to have them subjected to a controlled form of heat treatment under supervision, followed by high temperature baking.

Samples were also obtained from two further small parcels of this commodity, which came from Holland. In this case only one tin was found to be infected and the importers surrendered it for destruction.

Canned Rollmops

A parcel of 432 × 9 oz. and 15 × 5½ lb. tins of a German product called "Rollmops" (herrings rolled and spiced with onions and cucumber in vinegar) which had entered the country through another port was inspected at a local warehouse. All the tins showed signs of "blowing". Samples were sent to the laboratory and the analyst's report stated that the contents were in a decomposed condition. The entire parcel was surrendered and destroyed.

According to a declaration on the label of the tins, Benzoate of Soda and Hexamethylene were used as a preservative. Neither of these preservatives was detected when the contents were analysed. It was therefore assumed that the exporters, although aware that the Preservatives in Food Regulations prohibit the use of these chemicals in imported fish products, had used the wrong type of label. To avoid any further misunderstanding, the merchants were requested to bring these legal requirements to the notice of the London representatives of this German firm of exporters.

Desiccated Coconut

A shipment of 300 × 100 lb. bags of desiccated coconut moderately infested with the "saw-toothed" beetle (*Oryzaephilus Surinamensis*) was held for treatment with methyl bromide gas. The insects were confined mainly to the folds of the paper bags but they had penetrated 20 bags which were broken. Four of these bags were rejected as unsuitable for human food, and the remainder reconditioned under supervision.

Canned Argentine Corned Beef

Chemical analysis of some samples of this product showed that the lead content was higher than the recommended standard of 5 parts per million, due to excessive use of solder when the cans were being made. This was brought to the notice of the manufacturers' representative in this country and immediate action was taken by them to remedy this defect. Samples obtained from subsequent consignments of the same brand were satisfactory.

Imported Apples

Particular attention was given to consignments of apples following reports that apples from Lebanon had been found to be contaminated with arsenic upon arrival in this country. No trace of this substance was found on apples discharged here.

Frozen Meat Cargoes

Reference was made in previous annual reports to the soiling of mutton and lamb carcases which occurred at other ports when part cargoes were unloaded in "working tiers".

There is now a distinct improvement. Greater attention is being given at other ports to the protection of meat from contamination occurring in this way. Of 33 shipments, made up of more than 1¼ million carcases of mutton and lamb discharged at Avonmouth during the year, only 1,064 were detained for reconditioning and reclothing.

(3) *Dock Sanitation*

Factories

The inspection of factories was carried out at regular intervals throughout the year.

Action by this Department was confined to informal requests in connection with a few items of minor disrepair to sanitary fittings and occasional instances in which the general cleanliness of sanitary accommodation was unsatisfactory. In each case the management gave prompt attention to our requirements.

The erection of additional sanitary accommodation and cloakroom facilities was completed in five factories during the year, and work is in progress to add to the existing accommodation in four other factories.

Canteens

Frequent visits have been made to all the private and public canteens at the City Docks, Portishead and Avonmouth Docks, and at the Chittening Estate.

There has been no flagrant disregard of the requirements of the Food Hygiene Regulations and this may be partly due to the frequency of the visits of the Inspectors.

Staff supervision in these premises is, on the whole, quite good, and the management have given prompt attention to any minor lapses brought to their notice, whether these were observed by the Inspectors or dealt with on complaint.

(4) *New Legislation*

The Dark Smoke (Permitted Periods) (Vessels) Regulations 1958 came into operation on June 1st 1958, and the Schedule to these regulations is set out on the following page.

Schedule

	(1) *Class of case*	(2) *Permitted period for emission of dark smoke*
1.	Emissions from a forced draught oil-fired boiler furnace, or an oil engine.	10 minutes in the aggregate in any period of 2 hours.
2.	Emissions from a natural draught oil-fired boiler furnace (except in the cases falling within class 4 below).	10 minutes in the aggregate in any period of 1 hour.
3.	Emissions from a coal-fired furnace:—	
	(*a*) when the vessel is not under way (except in the cases falling within class 4 below).	10 minutes in the aggregate in any period of 1 hour.
	(*b*) When the vessel is under way.	20 minutes in the aggregate in any period of 1 hour.
4.	Emissions from a natural draught oil-fired boiler furnace or a coal-fired boiler furnace in the following cases:—	
	(*a*) a vessel with funnels shortened for the purpose of navigating the Manchester Ship Canal;	20 minutes in the aggregate in any period of 1 hour.
	(*b*) a tug not under way, but preparing to get under way or supplying power to other vessels or to shore installations:	
	(*c*) a vessel not under way but using main power for the purpose of dredging, lifting, pumping or performing some other special operation for which the vessel is designed.	
5.	Emissions from any other source.	5 minutes in the aggregate in any period of 1 hour.

The strict enforcement of the Regulations presents certain difficulties as there is a considerable variation in the "permitted periods" of dark smoke emission. As shown in the Schedule, these are governed by such considerations as whether or not a vessel is raising steam or under way, the type of boiler or fuel used and the class of vessel concerned. These factors must be taken into consideration when carrying out smoke observations and are of the utmost importance if formal action is contemplated.

It is reasonable to assume that dredgers and tugs which are allowed rather lengthy "permitted periods", will give rise to complaints long before the legal limit is reached, especially if they are operating in the confined waters of the City Docks.

The Inspectors are conscious of the need to curtail as much as possible the amount of smoke emitted from vessels and make a point of boarding whenever unnecessary smoke emissions are observed. For this purpose 47 visits were made to foreign going ships and 8 to dock craft during the year. As a result of the visits to dock craft during this time, 2 are being converted to diesel propulsion and a modification of the boiler of another has brought about considerable improvement.

The cause of unnecessary smoke emission is invariably lack of attention or carelessness on the part of the boiler room staff, and foreign going ships, many of them not of British nationality, are the worst offenders. It is therefore necessary to make known to the Masters of all vessels their obligations in this respect and, to this end, printed notices will be issued which will show that under Regulation 3 (a) (1) of the new Regulations, the continuous emission of *dark* smoke must not exceed 4 minutes, likewise under Regulation 3 (b) that in no case shall *black* smoke be emitted for more than 3 minutes in the aggregate in any period of 30 minutes. It is hoped that by introducing these notices, the responsible persons on these ships will ensure that the necessary instructions are given, and that every effort is made to conform to the requirements of the law.

(5) *General Sanitation*

The removal of domestic and trade refuse has been regularly carried out by the Transport and Cleansing Department and no nuisances were created by accumulations of this nature. The arrangements for daily collections of pig food from ships and canteens was also in operation throughout the year. The refuse was disposed of at the Corporation tip and amounted to 4,519 loads weighing about 5,038 tons.

(6) *Miscellaneous*

Pigeon Infestation

Faced with an ever increasing number of pigeons within the Avonmouth Dock area, the Port of Bristol Authority arranged for organised parties to shoot these birds on Saturday afternoons when the work at the dock is at a standstill. These have been held since June, and it is known that 2,810 pigeons were killed in this manner. It is intended to continue this method of getting rid of these birds, and it is hoped that their number will eventually be so reduced that this major nuisance will cease.

Bananas

As in previous years, through the kindness of Messrs. Elders & Fyffes, your officers have been able to arrange for the distribution of gifts of bananas which were too ripe for storage. However, owing to greater care and improved methods of storage, the total amount has been less than in previous years. The amounts distributed were as follows:—

Children's Hospital	616 lb.
Ham Green Hospital ..	504 lb.
Southmead Hospital ..	504 lb.
Muller's Homes	448 lb.

Port Development

The Port Authority has continued to carry out schemes for the development of trade, and to provide better facilities for their staff, ship and shore workers.

The new oil storage plant extending from Holdsmouth to Mitchell's Pill is in the process of construction. The new bridge giving access to this area was completed in July.

To meet the ever-increasing trade in tea imports, the Port Authority contemplate building a new warehouse with a floor are of 20,000 sq. ft. This will provide the space needed to sort and store this commodity.

From mid-September until the end of the year, Portishead Dock was closed to shipping so that repairs to the lock sills could be carried out. Ships normally using that Dock have been directed to Avonmouth and Bristol City Docks to discharge their cargoes. It is anticipated that these repairs will be completed in February 1959.

The canteen at West Wharf, Avonmouth, is being extended to provide almost 50 per cent increased table and seating arrangements for dockers employed in the vicinity.

Erection of a new building on the west side of the oil basin at Avonmouth will provide recreational and smoking facilities for crews of oil tankers whilst in port.

Separate rooms and toilets will be available for officers, white ratings and special ratings. It is also planned to build similar premises on the east side of the oil basin.

THE WILLIAM BUDD HEALTH CENTRE

Introduction

The Centre has continued to operate successfully throughout the year and visitors from different parts of the country as well as overseas have studied its operation with great interest. The doctors and staff continue to work together in a happy and harmonious atmosphere.

Staffing

The staffing position has been more settled. Miss E. M. Charles left in February to take a senior post in a large day hospital, being replaced by Miss R. D. Jones as Clinic Nurse. The latter left in September to return to the Mission Field and Miss H. M. Anglin, who did her pre-nursing training as a Clinic Assistant in the Department will be coming early in 1959. There was one staff change in the night porter establishment during the year.

It is of interest to record that Miss Gwen Padfield, the first Superintendent of the Centre, has been appointed to an administrative post with the Royal College of Nursing after returning from Libya.

Terms of Agreement

It was necessary to re-consider the agreement between the Executive Council and the Corporation so that a decision could be reached as to whether the Executive Council should take up the option to renew the agreement for seven years from the 1st July 1958.

The Joint Advisory Committee representing the Health Committee, the Executive Council, the Local Medical Committee and the House Committee met to consider the terms of agreement.

Upon the assurance being given on behalf of the doctors working at the Centre that they were prepared to continue practice there, the representatives of the four bodies then indicated that they wished the agreement to continue providing that the question of rent was determined.

Rent

After discussions between the L.H.A., Executive Council and the L.M.C. new rents were negotiated which showed a 30 per cent increase on those originally agreed in 1953.

Finance

It has often been said that general practitioner health centres are costly to run so it might be as well to scrutinise the costs of maintaining a Health Centre more closely than is usual to see whether this is really true.

Estimate—one year to 31st March, 1960

	Expenditure	£
1.	Salaries, wages, national insurance and superannuation	6,760
2.	Laundry allowances ..	50
3.	Repair and maintenance of buildings	800
4.	Fuel, light, cleaning materials and water	1,030
5.	Furniture and fittings ..	20
6.	Rent and rates	550
7.	Drugs, dressings and appliances	300
8.	Equipment	150
9.	Clothing, uniforms and laundry	170
10.	Hire of transport	75
11.	Printing, stationery, advertising, postage and telephones	375
12.	Travelling, subsistence and conference expenses ..	10
13.	Insurances	15
14.	Miscellaneous	10
15.	Loan Charges	1,870
		12,185
	Less	
16.	Recharge to clinics	4,110
		£8,075

	Income	£
1.	Rent—Executive Council ..	650
2.	Rents for hostel (nurses) accommodation	190
		£840

The £8,075 is supposed to represent the cost of the Health Centre for G.P. purposes, *i.e.* roughly $\frac{2}{3}$ of the total cost; the other $\frac{1}{3}$ being for L.H.A. purposes. This basis of $\frac{1}{3}$: $\frac{2}{3}$ is a very rough and ready approximation in terms of centre usage either by the general practitioners or by the L.H.A. In practice however the doctors often use the surgeries for only between $\frac{1}{2}$ to 1 hour and never take up the full 3 or $3\frac{1}{2}$ hours of an M. & C.W. or School Clinic Session. Moreover the health centre has developed into a base for so many local authority health and social workers that the arbitrary fraction now bears little relation to a realistic calculation.

As salaries and wages (1) amount to more than half the total expenditure an effort should be made to decide how much of staffing expenditure is needed for Part IV work only. In a clinic of similar size but concerned only with Part III services, a Deputy Sister-in-Charge and two Secretaries would not be needed. To offset this, a Local Authority Health Clinic would be carrying a Clinic Helper, a Clinic Assistant and perhaps a second Clerk. So the salary bill is only £800 more for a true Health Centre than a clinic. The general practitioners would strenuously assert at this point that the employment of Night Porters was against their advice and wishes; and further that the £1,500 annual expenditure for this service is solely for the purpose of allaying the fears of residents on the estate in regard to medical attention at night. The doctors are firmly of the opinion that they are able to make alternative night telephone arrangements.

Items (3), (13) and (15) relate to the provision and maintenance of the building which would have been required anyway for any type of Local Authority clinic.

Items (4) and (11)—fuel, light, etc., and telephones are again very difficult to apportion. It is true that lighting is heavy in winter for evening surgeries but it would seem unfair to charge ⅔ of the fuel bill to the general practices when they are in fact using the residual heat from the day time use.

It can be assumed from all this that it is virtually impossible to decide how much of the maintenance costs would have had to be borne by the Corporation in any case, how much is due to the needs of a community which for so long had no medical centre and lastly what proportion could be set against the rent paid by doctors.

But the value the people of Knowle West get from these services can best be assessed by the outcry that went up when they thought they were to lose even part of the night cover from which they alone benefit.

Reports

(*a*) *Nutrition Clinic*

One hundred and twenty-nine new patients were referred to the Nutritionist during 1958, chiefly because of excessive weight which the general practitioner is becoming increasingly aware precipitates much ill-health as well as impeding actual recovery from illness. In all, there were 499 attendances.

The holding of regular twice weekly sessions at this centre facilitates the supervision of weight control of expectant mothers and school children in the district, two groups for which visits at frequent intervals are particularly important and whose attendance elsewhere would be difficult and expensive. Where possible, appointments for expectant mothers are arranged to coincide with other visits to the centre and it is possible to see school children out of school hours.

Nutrition talks to expectant mothers attending the centre have been continued and talks on food values have also been given at the senior schools in the district.

(*b*) *Psychiatric Social Work*

In August Mrs. J. Bodman, who inaugurated the psychiatric social work, found it necessary owing to pressure of other work to hand over to Miss Stubbs. To quote from her letter—"I have enjoyed the work and shall be sorry to leave. I have learned a good deal from working with the health visitors whose company I shall miss. I hope to continue to know others as students when I lecture at Queen Square".

The service was temporarily carried on by Miss Stubbs, Senior Psychiatric Social Worker in the City's Health Service, and in December was handed over to Mrs. Gatliff who is working in the same team. It is hoped to provide two weekly sessions in 1959, in addition to time for home visiting. The need for this was mentioned by Mrs. Bodman in her last annual report. These changes have, of course, meant some initial disorganisation both for staff and patients and a few patients naturally fall away when the worker to whom they are accustomed leaves the clinic. New problems, however, continue to arise and gradually the gaps are filled.

During the year 21 new patients were referred by health visitors, medical officers and general practitioners working both in the centre and outside it. Forty-six old patients were seen and several house visits were paid in November and December. A number of patients needing regular advice and support in their problems were attending at fortnightly or monthly intervals at the close of the year. Twenty-seven sessions were held.

(*c*) *Relaxation and Parentcraft Classes*

Relaxation classes are now an accepted part of ante-natal work and are conducted by Miss Hogg, Senior Physiotherapist. There were 41 classes and 248 attendances

Parentcraft classes are held on the same afternoon as the relaxation classes. There have been 41 sessions and 306 attendances.

Also there were 4 evening sessions for expectant mothers and fathers when films were shown. Eighty people were present.

These sessions seem to have been very successful.

General Practitioner Work

At the end of 1958, there were 11,633 patients registered at the Centre, a decrease of 192 since the last report.

Patients' Attendances at the Centre

Table 1 shows the attendance by each quarter for each general practitioner firm.

TABLE 1

									Totals	
Doctors	*1.1.57 to 31.3.57*	*1.1.58 to 31.3.58*	*1.4.57 to 30.6.57*	*1.4.58 to 30.6.58*	*1.7.57 to 30.9.57*	*1.7.58 to 30.9.58*	*1.10.57 to 31.12.57*	*1.10.58 to 31.12.58*	*1.1.57 to 31.12.57*	*1.1.57 to 31.12.58*
A ..	3,731	3,481	3,283	3,263	3,285	3,041	3,901	3,406	14,200	13,191
B ..	552	556	419	441	452	449	567	564	1,990	2,010
C ..	2,561	2,469	2,098	2,278	2,179	2,276	2,719	2,453	9,557	9,476
D ..	1,147	1,106	937	918	967	952	1,244	1,102	4,295	4,078
E ..	1,515	1,553	1,334	1,473	1,434	1,364	1,665	1,480	5,948	5,870
Totals ..	9,506	9,165	8,071	8,373	8,317	8,082	10,096	9,005	35,990	34,625

Table 2 shows the volume of work undertaken by the nursing and medical staff in the minor surgery theatre (electro-cardiograms included).

TABLE 2

									Totals	
Doctors	*31.12.56 to 30.3.57*	*30.12.57 to 29.3.58*	*1.4.57 to 29.6.57*	*31.3.58 to 28.6.58*	*1.7.57 to 28.9.57*	*30.6.58 to 27.9.58*	*30.9.57 to 28.12.57*	*29.9.58 to 3.1.59*	*31.12.56 to 28.12.57*	*30.12.57 to 3.1.59*
A ..	492	1,730	1,042	2,031	1,837	1,903	2,078	2,026	5,449	7,690
B ..	16	89	71	70	90	74	288	249	465	482
C ..	386	690	693	808	849	801	756	863	2,684	3,162
D ..	18	92	94	63	120	198	86	189	318	542
E ..	199	402	381	535	521	575	476	611	1,577	2,123
TOTALS ..	1,111	3,003	2,281	3,507	3,417	3,551	3,684	3,938	10,493	13,999
Schools ..	125	190	165	180	248	177	190	216	728	763
Casuals ..	49	310	230	374	495	362	464	338	1,238	1,384
FULL TOTAL	1,285	3,503	2,676	4,061	4,160	4,090	4,338	4,492	12,459	16,146

N.B. 53 week year—1958.

TABLE 3—General Practitioner—Maternal and Child Welfare Work

	1957	*1958*
Sessions	188	199
Mothers attended	1,529	1,489
Average	8·1	7·5

TABLE 4—Number of patients referred to Hospital Specialists (all doctors)

Year	*Orthop.*	*Paed.*	*Phys.*	*Surg.*	*E.N.T.*	*Gyn.*	*Total*
1957	122	48	313	165	253	122	1,023
1958	107	50	307	227	252	116	1,059

TABLE 5—Patients referred to Hospital Diagnostic Units (all doctors and Local Authority)

Year	*Chest X-ray*	*Haemoglobin*	*Blood Count*	*E.S.R. B.S.R.*	*Urine*	*Total*
1957	179	247	4	—	151	581
1958	160	356	—	—	84	600

Number of patients referred by all doctors for X-ray other than chest X-rays—19 during 1958.

TABLE 6—Emergency Calls

Year	*Number of night calls—doctors*	*Number of night calls—sisters*	*Total*
1956	277	215	492
1957	508	191	699
1958	617	305	922

Local Authority Work

TABLE 7—Maternal and Child Welfare

	1957	*1958*
Medical Officers' session	48	51
Mothers attended	473	453
Average	9·9	9·0
Midwives' sessions	49	51
Attendances	431	387
Average	8·8	7·6

TABLE 8—School Health

	1957	*1958*
School doctors' sessions	—	51
New children	435	379
Attendance	622	581
Average	—	11

HEALTH EDUCATION

P. Mackintosh
(*Health Education Officer*)

Health education is not generally speaking spectacular; yet each time one looks back over the year's work, it is always surprising to see how much teaching of the public has been done on matters concerning the prevention of ill health and accidents. In the infant welfare clinics alone just under 600 talks were recorded during 1958. In the 15 main clinics where the regular parentcraft classes are held, 735 talks were given, many of which were illustrated by film strips and flannelgraphs and 105 of the classes included the showing of the film "My First Baby".

The parentcraft talks are given by medical officers, health visitors, midwives, physiotherapists and the nutritionist. Public health inspectors have given many talks on food hygiene to the staffs of catering concerns and food manufacturers and a special series of illustrated lectures was given to the kitchen and catering staffs of four large hospitals in the City; special lectures too were delivered to the school meals catering staff. Many talks are given by the staff of the Department in their own time to various guilds, clubs and youth organisations and often these talks are unrecorded because the individual health visitor or health inspector was approached directly by the organisations concerned. However, when these sessions have been illustrated with films, the film equipment has been used on 153 occasions. An interesting request for a series of lectures came from a large departmental store; the proprietors wanted to be certain that their staff in the children's clothing department would be able to advise customers correctly when purchasing babies' and children's clothes, so several illustrated lectures were given to the staff by a health visitor during the evening after the stores had closed.

The Nutritionist

Education forms a large part of the work of the nutritionist. A talk on nutrition during pregnancy features in the parentcraft classes. Because of the importance of the choice of the right kinds of food during adolescence, most of the health education programmes arranged for the school leavers include a talk by the nutritionist. More general information is given at women's clubs and these present an opportunity for discussing recent scientific findings regarding food in relation to traditional feeding habits. In support of the B.M.A. ("Family Doctor") better feeding campaign, inaugurated in 1958, cooking demonstrations preceded by talks on food values, and displays showing the nutritive value of different foods, were arranged and attracted considerable numbers of people. In addition, the other aspects of the nutritionist's work *e.g.* clinical and advisory services and participation in the training of students and other personnel, all provide opportunities for promoting a greater knowledge of nutrition which should contribute to an improved standard of health.

Film Shows

As noted above, the film equipment was used on 258 occasions, that is, on practically every day of the working week in the year. In order to be able to arrange so many shows each year it is necessary to have a number of people available who are able to operate the equipment and in this respect, Miss Finch the Technical Assistant, has done an admirable job in training, as operators, five male clerical officers and four trainee public health inspectors. Miss Finch is also responsible, among her other duties, for arranging all these film shows—the operator, transport for the equipment and keeping a record of the shows—and it is a credit to her and all concerned that on one occasion only during the year was a show cancelled—and that was due to an electric fault when the lighting of a whole district in Bristol fused; we don't *think* that our equipment was responsible.

Exhibitions and Campaigns

During the year, a good deal of time was spent on arranging exhibitions concerned with public health matters. Mention has already been made of the nutritionist's work in this respect, but in addition considerable attention was given once again to the prevention of accidents in the home (see below), clean air, food hygiene and vaccination against poliomyelitis. With the exception of the last topic, one feels that the general public are interested and are responding to our efforts. Prevention is a difficult thing to teach, primarily because it means getting people to do something themselves for themselves, like changing a long acquired habit or taking some specific action to improve their health and well-being. After four years as Health Education Officer, one can say with a fair degree of certainty how the public react to health education, what individuals are interested in and what they are prepared to listen to, and it is possible to do this by considering the many requests we get for information, for lectures, and for film shows. Home safety, food hygiene and nutrition are topics which figure high on the list, but information on cancer education and the programme of immunisations and vaccinations is seldom sought, whether it be for children or for adults. The level of immunisation against diphtheria is dangerously low and it seems that parents are not interested in protection against a disease which has not appeared in the City in twelve years; they think it is conquered, that it is wiped out, and it is difficult to convince parents that this dreadful disease could return again and with appalling consequences—when you consider that two generations of medical students have qualified in Bristol and none of them have seen a confirmed case and too, many of our health visitors have no experience of diphtheria. Again, in connection with vaccination against poliomyelitis, here we felt that we should get a good response from the public; polio is a killer and a crippler and within recent years, unlike diphtheria, has been on the increase; the public know more about it and are—so we hoped—more conscious of the disease. We did get a good response from those parents with infants and school children but the age group in which poliomyelitis strikes hardest showed little interest when the vaccine was offered to those persons between 15 and 25 years. In October, when the vaccine first became available, the extended scheme was publicized in the local press both by articles and advertisements, a window display was arranged in the City Information Bureau and posters were put up in places where the general public would see them. Four clinics in the City were kept open at night so that young people who could not be released from their employment, could come along after work and receive their first injection when they registered. Results were most disappointing and by the end of the year two of the clinics were closed and attendance at the other two was very small. At the time of writing this report, a well-known international footballer has unfortunately died from polio and young people are queuing at the clinics to be vaccinated. On the face of it, it seems that in some matters concerned with health, nothing short of a catastrophe or epidemic will persuade the public to take preventive measures.

Teaching and Training

The annual refresher course for public health inspectors was held at Rodney Lodge from 27th to 30th March inclusive. No formal course for health visitors was held, but a series of seven evening talks was given by Dr. Lumsden Walker. Each lecture was followed by group discussions, the series being designed to give health visitors a better appreciation and understanding of mental health problems.

Miss Finch attended the Summer School of the Central Council for Health Education in August and in the following month the Health Education Officer acted as study group leader at the Autumn School of the Women Public Health Officers' Association.

During the academic year, five lectures on health education were given to the D.P.H. students and one to the health visitor students.

Once again the Heads of about half a dozen secondary modern girls' schools availed themselves of the services offered by the Health Department for their school leavers and more detailed reference to those school leavers' courses is given in the School Health Services section of this Report.

The classes for housewives, to teach them correct lifting and handling techniques and relaxation, continued until July. These classes are proving extremely popular and the ladies who have attended claim to have derived considerable benefit from the instruction they have received. Classes will again be held during 1959.

Home Safety

The Home Safety Council has continued to function with success and the activities of the year are given below; this is done in the form used last year, *i.e.* the reports of the Home Safety Council to the Health Committee every six months.

Report to Health Committee, 9th July, 1958

The first Annual General Meeting of the Bristol Home Safety Council was held on 22nd January, 1958, when the activities of the Committee and Council were reviewed. Since the last report to the Health Committee on 4th February, the Council has met twice, and the Committee have held five meetings. The activities of Committee and Council are listed hereunder.

1. A survey of the position regarding flame-proof material was undertaken. Fourteen shops in the City were visited, and enquiries made. It was found that two special makes of Winceyette were on sale, both of which offered protection from severe burning, but neither gave 100 per cent safety. A product marketed by Horrockes was felt to be hard in texture, and, in addition, was considerably more expensive than ordinary makes. Enquiries for "Proban" treated material were without success. A request to the manufacturers of "Proban" brought information about wholesalers who could supply "Proban" treated garments, and the Council report with pleasure that Messrs. Kemble Williams Ltd., Wells Road, Bristol, agreed to support the Home Safety Council by stocking "Proban" nightdresses for children.

   Correspondence with Messrs. Marks and Spencer's produced a reply stating that the heads of the firm were greatly concerned about the matter of fireproof clothing for children, and were carrying on constant research. They promised to report any advance in the matter.

2. A letter sent to Tri-ang Toys Ltd., regarding unsafe pedal scooters, and a communication to Mr. Harry Corbett regarding a Television feature felt to be harmful to Home Safety principles, had received satisfactory, if somewhat inconclusive replies.
3. The Home Safety Council carried on a most successful campaign early in April when the public were reminded to dispose of unwanted tablets, and medicines. "Spring-clean your Medicine Chest" week opened with a talk at the Bristol Rotary Club by Dr. T. E. Oppé, M.B., M.R.C.P., D.C.H., Lecturer in Child Health, University of Bristol. A feature of the Campaign was a window display at the City Information Bureau, which attracted considerable interest. The chemists in the City were circularised, and supplied with posters and leaflets for distribution. (The work of distribution to the chemists was kindly undertaken by the Women's Co-operative Guilds.) The Council was helped in this effort by the kind assistance of the Health Clinics, the Civic News, and the Women's Page Editors of the local newspapers.
4. The North Somerset Agricultural Show provided another opportunity for "Home Safety" propaganda. The Severn Chair and Marquee Hiring Company kindly supplied and erected a tent free of all cost to the Council, and relays of helpers (organised by the Association of University Women), during the period of the Show, staffed the exhibit, doing much good by conversations with the public, and the distribution of printed matter.
5. It is gratifying to be able to report that the Housing Department and the City Architect's Department have joined the Council and their representatives have been co-opted on to the Committee.
6. At the Council meeting on April 30th, it was a pleasure to introduce Mr. G. A. Morgan, a Public Health Inspector, who spoke of the dangers peculiar to the older type of property; houses often occupied by the elderly and infirm.
7. One of the most pleasing features of the work of the Home Safety Council, has been the increase in the number of requests for talks on Home Safety. These continue to come in, and the office record show that by 16th July 47 talks were given this year. An increasing demand for talks comes from Old Age Pensioners Associations and speakers report that the talks are received with great interest. The Secretary gave a talk and demonstration of visual aids to the housecraft teachers at a meeting at Radiant House. It was reported that much interest and enthusiasm was aroused as Home Safety is now included in the schools curriculum.
8. The Council is happy to report that this Spring Number of "Home Safety Bulletin", the publication of the Royal Society for Prevention of Accidents, has nearly two pages devoted to an account of "Home Safety" activities in Bristol during the latter part of 1957.
9. The exhibit at the Royal Show was devoted to two topics—accidents in the garden and the prevention of burns. Once again the stand was staffed by members of the North West Federation and the Bristol Castle Federation of Townswomen's Guilds and by members of the Home Safety Committee.

Report to Health Committee, 7th January, 1959

During the six month period, the Home Safety Council met twice and the Home Safety Committee four times. All the meetings were well attended and the spirit of co-operation among the many organizations represented, has been most marked.

Three main events have occurred during the period and summaries of these are given below.

I. Broken Glass Campaign

From 21st July to 2nd August, a campaign was held designed to focus public attention on the dangers arising from broken glass, and to prevent the careless use of milk bottles and other breakable containers.

1. Posters and in some cases, leaflets, were issued for display to the following:—
   - (*a*) 208 schools in the City.
   - (*b*) All general medical practitioners (for their waiting rooms).
   - (*c*) All Local Authority Clinics and Infant Welfare Centres.
   - (*d*) South-Western Gas Board and South-Western Electricity Board showrooms.
   - (*e*) All police stations in the City.
   - (*f*) Headley Park and Hillfields Park Community Associations and the University Settlement.
   - (*g*) Public Health Department Notice Boards at College Green and Deanery Road.
   - (*h*) The milk vans and milk floats of Bristol Dairies Ltd. and the Co-operative Dairies (700).
   - (*i*) The estate notice boards and estate offices of the Housing Department.
   - (*j*) Municipal parks notice boards and sports pavilions (60).
2. Two displays were arranged, at the City Information Bureau and at the Rex Cinema, Bedminster.
3. Leaflets, posters and explanatory letters were sent to the women editors of the three local newspapers, and as in all our campaigns, the press supported our efforts admirably.

II. Exhibit at the Civic Horticultural Show

Once again, the Horticultural Committee very kindly granted free space for an exhibit at the Horticultural Show. In the 1957 Show, some interest had been expressed in the small panel which dealt with poisonous plants and berries. In 1958, it was decided that this should be the main theme of the exhibit. The exhibit was a great success and attracted large numbers of visitors. Many live specimens of poisonous plants and berries and coloured illustrations were on show; a special leaflet was prepared jointly by the Horticultural Officer, a Medical Officer of the Health Department and Officers of the Home Safety Council; over 2,000 copies of this leaflet were distributed and copies were later sent to R.O.S.P.A. with the request that something similar should be produced by the Society. The exhibit was staffed by volunteers from the North West Federation of Townswomen's Guilds, the Mothers' Union and the Bristol Castle Federation of Townswomen's Guilds. It is very encouraging to report that the exhibit was awarded a Silver Medal by the Show judges.

III. "Guard that Fire" Campaign

This was the biggest campaign that the Home Safety Council has so far undertaken. It formed part of a national campaign which was launched on 3rd November, 1958, by the Home Secretary. Details of the exhibition in Lewis's Stores, of the Public Meeting and other forms of publicity are given as an appendix to this report. The Home Safety Council take great pleasure in recording their appreciation of the wonderful help given by so many people and organizations in this campaign; in particular to the Lord Mayor and Lady Mayoress for so readily supporting the campaign, to Mr. Fitzgibbon of Frenchay Hospital and Divisional Officer Walsh of the Fire Brigade for their admirable contributions to the Public Meeting and to Mr. Kirkup, Chief Fire Officer, for his support, and members of the Fire Brigade for the work on the central exhibit at Lewis's Stores.

It is always a little difficult to assess the success of a campaign of this nature, but it is interesting to record that Lewis's Stores reported that their sales of fireguards increased by one-third during the first two weeks of the campaign (part of this increase must be attributed to the seasonal trend in sales); the Co-operative Society reported that they were selling greatly increased numbers of the British Standard type of fireguard, *i.e.* the type advocated in the campaign, and the ironmongers and hardware merchants reported increased sales of all types of fireguards. It was noticeable too that during the Christmas period—a time frequently associated with burning accidents, no case of burning was recorded in the local press.

Other Activities

(*a*) During the year 1958, a total of 76 talks were recorded, 29 of which were given between July and December. Members of the panel are doing excellent work, the majority of the talks being given in the speakers' own time. Every request for a talk on home safety has been met with and on those occasions when a speaker has for some reason or another been unable to attend a meeting, it has always been possible to find a substitute speaker.

On the 17th September a social meeting of the speakers was held at the Central Clinic. This was the first opportunity the speakers had had to get together and compare notes and the meeting proved to be highly successful.

(*b*) For some weeks before Guy Fawkes Day, members of the organizations on the Home Safety Council distributed suitable posters to most shops in the City which were selling fireworks.

(*c*) A member of the Council noted that there were a number of yew trees on the Downs, each one bearing a heavy crop of poisonous berries and the branches within reach of small children. The Town Clerk was approached and he arranged to have the lower branches lopped. The Home Safety Council produced stencilled notices, warning the public of the dangerous nature of the berries and these were fixed in the trees by the Downs Rangers.

(*d*) It is a pleasure to record that during the past six months several other local authorities have asked for information about the organization of Bristol Home Safety Council. It is apparent from these requests and from other observations that Bristol Home Safety Council organization and degree of activity are regarded as being something of a model for other home safety organizations. It was most encouraging to be informed by R.O.S.P.A. that the Ministry of Health was observing the Bristol organization with great interest. The success of the Bristol Home Safety Council is due to a number of factors, and one of the most important of these is the continued support and interest of the Health Committee and the Health Department and we should like once again to record our appreciation of this fact.

"*Guard that Fire*" *Campaign, November, 1958*

Exhibition

An exhibition was held in the Cafeteria of Lewis's Stores during the week beginning 3rd November. It was opened by the Lord Mayor on Monday, 3rd November, in the presence of an invited audience. The exhibition was designed and executed by the Bristol Fire Brigade, who also staffed it continuously. A rota of health visitors was also on duty throughout. The exhibition was mainly concerned with guarding fires and there were also models of children wearing flame-resistant clothing: these were provided by Lewis's. A child's flare-free nylon net party dress, made by Mrs. Dunbabin, was also exhibited. Films were shown at twenty-minute intervals on a daylight screen by operators from the Fire Brigade and the Health Department. There was a tableau of a hospital scene, showing a bad burn being dressed by a nurse. Equipment for the exhibition was loaned by the Gas Board, the Electricity Board, Southmead Hospital, the Royal Infirmary, the Bristol School of Nursing and the Health Department. Many hundreds of leaflets were distributed at the exhibition.

Public Meeting

A public meeting was held on the afternoon of 3rd November in the Conference Room at the Council House, which was provided free of charge by the Municipal Buildings Committee. The Lady Mayoress took the Chair, Mr. G. M. Fitzgibbon, Surgeon-in-Charge, Plastic Department, Frenchay Hospital, gave a talk, illustrated by coloured slides of the victims of burning accidents. Divisional Officer, L. M. Walsh, Senior Fire Prevention Officer, Bristol Fire Brigade, gave a talk and demonstration on the prevention of burning accidents. Alderman Milton, Chairman of the Health Committee, thanked the speakers.

Shops and Stores

All members of the Bristol Ironmongers' Association displayed posters and leaflets and conducted a special fireguard campaign. Fireguard displays, with posters and leaflets, were held at a number of stores, including Lewis's, Jones's and the Co-operative stores. The Co-operative stores also dressed two of their Castle Street windows to show the need for fireguards in bedroom and living room.

Displays were also held in the Electricity Board's showrooms and in the Gas Board's showrooms and windows.

Other Publicity

B.B.C.—Chairman of Home Safety Council spoke in "Roundup" on the eve of Guy Fawkes Day.

Cinemas—many took posters, leaflets and/or short films.

City Information Bureau—window display.

Civic News—notice.

Community Associations—some put posters on notice boards.

Hospitals—all local hospitals took posters and leaflets for out-patients waiting rooms, nurses' homes, etc.

Housing Department—posters in estate offices and on outside notice boards.

Local Newspapers—considerable publicity; special "Home Safety" half-page in "Evening Post".

Police Stations—posters exhibited outside.

Public Health Department—"Guard that Fire" slogan on all outgoing mail; posters, leaflets and special features at clinics; article by Mr. Fitzgibbon on burns and scalds in Medical Officer of Health's Bulletin.

Public Health Department Notice Boards (College Green, Deanery Road and Avonmouth)—posters.

THE DISEASES OF ANIMALS ACT

J. Allcock, B.V.Sc., M.R.C.V.S.

(*Inspector under the Diseases of Animals Act*)

Cattle Market

There have been 8 pig sales at which 124 licences have been issued for 466 pigs. Two sales on once tested Irish Store Cattle were held and 20 licences issued for 316 cattle.

Diseases of Animals Acts

Swine Fever

There were 8 suspected outbreaks of swine fever four of which were confirmed. Two of these cases were at Hotwells Abattoir in pigs from infected herds consigned to the Abattoir for slaughter, and swine fever lesions were discovered by the Meat Inspectors at routine examinations. During the course of enquiries into one outbreak it was found that there was a complete absence of Movement Records as required by the *Diseases of Animals Act*. This matter has been passed to the Town Clerk's Department with a view to a prosecution following.

Anthrax

Anthrax was brought into the City via the hide of a cow that had died of the disease. This hide and four others in contact were destroyed by the Cleansing Department using flame guns and the lorry and premises were disinfected also. This was a case which should never have occurred had the proper steps been taken after the death of the animal and prior to skinning it. As it was, the complete neglect of these precautions could have caused the loss of human life. Happily no repercussions occurred.

Swine Fever Infected Area

Because of the high incidence and rapid spread of swine fever during the early summer, infected areas were designated by the Minister of Agriculture on June 13th. These areas came under movement restrictions and shows and sales could not be held. Bristol was not included in the areas but Somerset and Dorset were; the other affected counties were Chester, Leicester, Salop, Stafford, Warwick and Worcester. As the Royal Show was held in Bristol from July 1st—4th and pigs could not be moved within the areas many transport problems had to be solved.

Much help was given by the A.A. in this connection in solving problems such as "a route from Preston to Bristol avoiding Leicestershire, Cheshire, Shropshire and Warwick".

Whitchurch and Keynsham which had been excluded from the original area were included after July 6th and the restrictions were removed on August 9th.

Sheep Scab Order

Sheep dipping for scab took place in Bristol from July 15th—August 31st. The order requires that 3 days notice of intention to dip shall be given: with one exception this notice was not given and thus it was only possible to supervise dipping on one farm. The regulations have now been amended and all owners of sheep in the City reminded of their responsibilities.

Pet Animals Act, 1951

Visits have been paid to some of the premises licensed under this Act, and it is hoped to complete the visits so that all Pet Shops have been seen by the end of the current year. I am not altogether happy about some of the Pet Shops licensed, in that licences have been granted subject to certain conditions and many of these conditions are not being observed.

Diseases of Animals Communicable to Man

A scheme for initiating research into this problem has been submitted to the Medical Officer of Health. The medicine department of the University Veterinary School have been approached and have promised their help.

General

Meetings have been held with the public health inspectors and advice given on matters such as the possible public health danger of a broiler factory, the siting of riding stables and the standards of hygiene of the piggeries in the City. These latter are like the curate's egg only good in parts, and some of the worst piggeries are those on land owned by the Corporation. Steps are being taken to improve the situation for I feel that this example cannot help any efforts to improve the general standard within the erection of further piggeries unless some fundamental principles of construction and hygiene are observed.

At the request of the hospital authorities a dog suspecting of transmitting fleas to children was examined, happily for the dog's sake—no fleas.

Finally I would like to record my appreciation of the assistance I have had from all Departments of the Corporation with whom I have made contact. The help alone has been more than I might expect as a right and the invariable good will and cheerfulness that have accompanied it has been of great encouragement during my first 8 months as Veterinary Surgeon to the City.

CIVIL DEFENCE RESPONSIBILITIES OF THE MEDICAL OFFICER OF HEALTH

Dr. H. Temple Phillips
(*Chief Assistant Medical Officer of Health*)
and W. J. C. Winterson

The year under review represents the first twelve months with the administration of the Civil Defence activities of the Health Department located at the Central Health Clinic.

The plans of the Health Department for the casualty and other services, in common with those for Civil Defence generally, have been reviewed in the light of the advent of thermo-nuclear weapons. The plan for the casualty services has had to be almost entirely re-cast, and many details remain to be worked out in conjunction with hospital authorities and Government Departments.

The aims of the Government's plan for the organisation of the casualty service in wartime are to provide:—

(*a*) continuation of the peacetime health services for ordinary sickness and disease; standards of accommodation and treatment would have to be reduced to release manpower and accommodation for—

(*b*) an expanded service to provide for as many civilian war casualties as possible, plus those service casualties and sick who could not be dealt with in existing service hospitals.

In the event of war, the peacetime work of the Health Department will have to be maintained, possibly with a depleted staff, and many of the services will have to cope with additional responsibilities arising from wartime conditions. For example, it will be extremely important to increase preventive measures to check the spread of infection, to intensify precautions against food poisoning, and to ensure that water supplies are free from pollution.

Miss L. M. Bendall, Chief Nursing Officer, attended a special course for nursing officers arranged by the Ministry of Health at the Civil Defence Staff College, Sunningdale, from 10th to 14th February 1958. The course was designed to convey information about the background of Civil Defence planning, the special problems involved in running the nursing services in wartime, and information on nursing techniques needed in atomic war.

Mr. W. J. Winterson attended a course at the Home Office Training School, Falfield, from 10th to 14th March 1958. This was the first of a new series of courses for those who will hold officer rank in the expanded wartime ambulance service, and the emphasis was on the responsibilities and leadership of ambulance officers. The students were brought up-to-date with the latest information available on the future organisation of the Ambulance & Casualty Collecting Section in the light of modern development, the planning of depot areas and the siting of hospital areas. In the event of an emergency, the Ambulance & Casualty Collecting parties would have to work practically without medical personnel and a very high standard of training in first aid and home nursing would be of the utmost importance.

Mr. L. Burrows, a Station Officer in the Bristol Ambulance Service, attended a short qualifying course for locally-trained instructors at Falfield from 17th to 22nd November 1958, and successfully completed the examination held at the end of the course.

Ambulance and Casualty Collecting Section

During March and April a survey of non-active members of the Civil Defence Corps was undertaken to ensure that as far as possible all enrolled members of the Bristol Division were effective members of the Corps. As a result of this, some 400 names were deleted from the active roll of the Section, leaving an effective strength of 250. A recruiting campaign was initiated in the autumn, and the position at the close of the year was that the enrolled strength of the section totalled 287. As a result of the influx of new members, first aid classes were organised at the Central Health Clinic and at the Mary Hennessy Clinic at Hartcliffe, in addition to the normal section training which continued at the six sub-divisions situated in various parts of the City. For some time the number of members attending the old Central ambulance sub-division in premises at Ashley Down had dwindled, and arrangements were made for a new sub-division to open at the Southmead Health Clinic.

During the year, three ambulances were considered no longer roadworthy, and were replaced by vehicles acquired from the City Ambulance Service; they were converted to dual purpose ambulance/casualty collecting vehicles. Due to an increase in the total number of vehicles allocated to the Bristol Division, it was found necessary to seek alternative accommodation for at least three ambulances which had hitherto been accommodated at Netham. The Corporation depot in St. Johns Lane, Bedminster, formerly used by the Transport and Cleansing Department, became available, and after certain adaptations and redecorations had been carried out, the premises were taken over as an ambulance depot. A small office and stores accommodation are part of the premises, and it is intended that the full-time instructor and driver/store-keeper will be installed there.

Driving instruction continued throughout the year. Thirty volunteers have undertaken instruction, eleven of whom had previous driving experience. Twenty-four warrants were issued to successful candidates authorising them to drive Civil Defence ambulance vehicles.

The award of the British Empire Medal to Mr. G. E. Palmer in the Queen's Birthday Honours list gave much pleasure. Mr. Palmer has completed twenty years in Civil Defence and during the last war served as an Assistant Depot Officer and Training Officer in the Ambulance Section at St. George. He maintained his interest during the stand-by period and enrolled again immediately the post-war organisation was formed. Mr. Palmer has modestly suggested that the honour is due to the Ambulance and Casualty Collecting Section, and in this award, therefore, all its members can take a share. The Duke of Beaufort presented the award to Mr. Palmer during a parade and inspection of the Bristol Division of the Civil Defence Corps at College Green.

Civil Defence Exercises

A large scale Civil Defence exercise was organised by the Ministry of Health in Surrey on the 4th and 5th May, and Mr. R. F. Wood, the Chief Ambulance Officer, was invited to attend as an observer. This was a prelude to a similar exercise also arranged by the Ministry and which took place on Sunday, 13th July.

Exercise "Reliance" was designed to test the evacuation of casualties from Bristol to a hospital area in Bath. The Bristol Ambulance Service provided twenty-five ambulances and drivers to augment those of the Section, and with the co-operation of neighbouring authorities a fleet of sixty vehicles was assembled to deal with more than six hundred "casualties".

The objects of the exercises were threefold:—

To test the organisation and time involved in the clearance of casualties from ambulance loading points to their reception and treatment at hospitals well outside the target area.

To experiment in the organisation and siting of forward medical aid units and to exercise them both in the field and at hospital level.

To practise co-operation between Civil Defence Corps, the hospital service, the National Hospital Service Reserve, the Police, and the Army.

The Regional Director expressed his satisfaction with the results and the degree of efficiency achieved. There is no doubt that the control and deployment of large fleets of ambulances under emergency conditions presents a number of problems, and these are being considered by the officers concerned.

Further large-scale exercises were organised during the year as follows:—

Exercise "Aircraft"—Tuesday, 18th March

The incident represented an aircraft crash in the ground adjacent to Snowdon Road Hospital. Casualties were carried by stretchers over very rough ground into the hospital for treatment by members of the Mobile First Aid Unit from Southmead Hospital.

Exercise "Second Bite"—Sunday, 15th June

This was a combined exercise with the Bath Ambulance Section. Its object was to test volunteers' knowledge of map reading and route finding.

Exercise "White Line"—Sunday, 7th December

The objects of the exercise were to practise movement of a large number of ambulances through the complete operational chain of control, and to exercise drivers in convoy movement and map reading.

South-Western Region Civil Defence Competition, 1958

The Bristol team competed against Bath, Cornwall, Gloucester, and Swindon, and won Group B of the Regional competition which was held at Castle Combe on 17/18th May 1958. The Ambulance & Casualty Collecting Section won their Section competition and were awarded the appropriate shield. The final round of the competition was held in Bristol on Sunday, 1st June, when the Bristol team competed against that from Devon County Council. The Bristol team was again successful and as a mark of appreciation the Civil Defence Committee awarded mementoes to the personnel concerned. It is proposed to hold a national competition in alternate years commencing in 1959, and the Bristol team will represent the South-Western Region.

In addition to the normal section and first aid training which continued throughout the year, specialised lectures were arranged from time to time. A physiotherapist in the Department gave a lecture on the correct handling and lifting of patients. Film shows were arranged embracing such subjects as "rescue from crashed aircraft", "typical war injuries", "emergency obstetrics", etc.

One of the great difficulties in an organisation such as this is the maintenance of a continued interest. This is not peculiar to our own particular section or indeed to the Civil Defence Corps: it is a problem which faces organisations of all kinds. Our own particular problem is that a duty has been entrusted to us of having a body of well-trained personnel immediately available in the event of an emergency (national or local) arising. Persons joining the section for the first time must complete a course of training extending over a period of some 50 hours to enable them to qualify for the various proficiency awards. At the same time the interest of those who, over a period of years, have given loyal and devoted service, cannot be ignored, and indeed, their training must be sustained if they are to keep abreast of new techniques and alterations in procedure as they arise.

First Aid and Home Nursing Training

With the publication of the new Civil Defence First Aid Manual in March, revised arrangements which have been approved for training members of the Civil Defence Corps in first aid became effective. The full course for members of the Ambulance & Casualty Collecting Section is now spread over 14 hours and a combined course in first aid and home nursing was introduced for women members of the Welfare Section.

The following table shows the number attending for first aid training from all Sections of the Corps during the year:—

	Full First Aid	*Combined First Aid and Home Nursing*	*Home Nursing*
No. of classes	6	2	3
No. of volunteers attending ..	105	45	25
No. of volunteers examined ..	90	—	18
No. of volunteers passed ..	86	—	16

REPORT OF STATISTICIAN AND RECORDS OFFICER

E. H. L. Duncan

Vaccination against Poliomyelitis

The vaccination against poliomyelitis of 63,000 Bristolians during 1958 involved a tremendous amount of record handling with all the concomitant discussions, designing of records, drafting of letters and communications, and the answering of queries.

At the beginning of the year vaccine was in very short supply, being distributed by the Ministry of Health at irregular intervals in proportion to the numbers registered and waiting in the various Local Health Authority areas. This meant inducing parents to register their children months before vaccination was possible and filing the cards so that supplies, as they were received, could be allocated to those who had special priority or who had been waiting longest. At the same time we had to file according to whether they were to be inoculated in general practitioners' surgeries, schools, institutions, or L.H.A. clinics, and alphabetically within the various groups so as to be able to transfer to other L.H.A. areas the records for children who had moved there.

There were 36,000 children registered and waiting for vaccine at the beginning of the year, but fortunately two-thirds of these had been registered after the Ministry of Health had announced that American-manufactured Salk vaccine retested in this country would soon be made available and that the onus of deciding whether a child should or should not receive this type of vaccine rested with the parent. Special cards giving the choice of vaccine had accordingly been printed, but letters had to be addressed to the parents of the other 12,000 previously registered and the replies indicated on the cards.

In May more than half of these children had still not been vaccinated when the Ministry of Health introduced American Salk vaccine not retested in this country. By then we had a total of over 29,000 children waiting to be done and we had to communicate with all the parents asking for their choice of vaccine, and complicate the filing system still further by having, as well as priority groups, three choices of vaccine for about 200 schools, 14 clinics, 120 general practitioner practices and a few residential institutions where injections were to take place.

The American vaccine arrived in large quantities a few days after the announcement, and we decided to attempt to get as many of the children inoculated at school with both injections before the end of the term in July. It was not going to be possible to address individual letters to parents and get replies giving the choice of vaccine back by post and transferred to the record cards in time, so we enlisted the co-operation of the schools and this we got wholeheartedly. They handed out forms, which had been very quickly prepared and printed, to the parents of the children who had registration cards, in many cases also matched up the cards and replies for us, then sent everything back to the Central Health Clinic. There we gave all cards an appropriate stamp indicating the latest parental choice of vaccine, counted the cards in the various vaccine groups so that the appropriate number of injection sessions could be planned, and, in order to avoid mistakes, returned to the schools before an injection session only those cards for the type of vaccine available at the particular time.

Simultaneously with the school programme, there were sessions at all the main clinics which meant keeping up-to-date numbers of those registered for each, arranging as many injection sessions each week as the syringe service could accommodate and trying to keep all the clinics in step with each other as much as possible, writing out appointments for all these and seeing that they were sent out in time. Record cards for those to be inoculated by their private doctor had also to be dealt with and the issue of the appropriate amount of vaccine authorised as each batch of vaccine was received from the Ministry of Health. All cards returning from injection sessions had to be scrutinised for the 25 per cent who, on average, were not inoculated and these had to be allocated to some appropriate future group with the right kind of vaccine. Up-to-date statistics were also required by the Health Committee fortnightly and by the Ministry of Health every two months of the numbers completed in various age groups and of those with one injection and those still waiting according to the type of vaccine as well as the age group.

Obviously this meant increasing the clerical staff and two clerks were temporarily transferred from another section. Despite being allowed to use the library we were very cramped for table space and it required constant vigilance as well as a specially introduced colour scheme to prevent mixing or misfiling the numerous categories of cards which were being handled simultaneously. The general public also had to be dealt with in person, by phone or by letter, their general queries answered and their appointments or changes of appointment at the Central Health Clinic arranged.

As this period coincided with my personal assistant, who had been conversant with the poliomyelitis vaccination regulations and our administration. leaving to take up an appointment in New York, and the 7-week gap before her successor, who was new to it all, arrived, it caused a 60-70 hour week for myself for fully two months. This was despite some very able assistance from Miss Finch, assistant to the Health Education Officer, who spent the major part of her time during the 7-week gap helping with the organisation of the schools programme.

My daytime was spent instructing and assisting my enthusiastic but frequently over-worked clerks, answering the many enquiries from clinics, schools, general practitioners and public, dealing with the incomplete, ambiguous or otherwise spoiled forms, keeping a constant watch on progress and speeds in the various sections of the work and adjusting priorities so as to keep to our time-table, keeping up-to-date numbers in the various groups so that injection sessions could be planned in accordance with the amount and type of vaccine available and the Health Committee and Ministry of Health informed of progress, making out daily lists of schools for the transport section, until someone else was available and trained, and checking the contents of the packages, selecting registrations with the greatest priority for the various clinic sessions and estimating the number of probable defaulters which varied according to the area of the City, the age group, and whether they had previously failed to respond to an appointment, seeing that all appointments were written and sent out in time, authorising the issue of vaccine to general practitioners and keeping their registered cases in step with the others as regards priority.

Evening work consisted of assessing the forthcoming priorities of office work, planning and re-adjusting the best use of personnel and tables according to the changes occurring as the various stages of the programme were reached, breaking down the work on mass production lines to simple operational units which could be learned quickly by the changing temporary staff and which also, where necessary, could be easily checked, and drafting communications of various kinds so as to transmit information, help co-ordination and reduce the number of enquiries. Meantime, the ordinary work of the section had to continue, a number of lectures had to be prepared and given, and, although as much special statistical work as possible was postponed, some new work was unavoidable and there was some already in train which had to be continued or completed, including two investigations with lengthy involved computations which could only be done in the evenings after the phone had stopped ringing.

The fact that we had had 98 cases of poliomyelitis in Bristol the previous year, 70 of them paralytic and 2 fatal, coupled with the issue of large quantities of vaccine so close to the "polio season" meant that priority of registration for vaccination had constantly to be considered in order to avoid possible justifiable complaints. The long intervals between registration and vaccination also increased the clerical work by giving an opportunity for many changes of address which necessitated finding and transferring individual cards from one school or clinic file to another. Many also changed their choice of vaccine when they discovered that they were not likely to get the British vaccine they wanted until late autumn. Indeed, it was not until November that we received sufficient British vaccine for all those still waiting for it. All the others had received at least one appointment by the end of July except at Granby House clinic where, despite regular evening sessions, they were 2 or 3 weeks later because of a shortage of suitable rooms.

All the absentees from school inoculation sessions and those postponed because the type of vaccine chosen had not been available were given appointments at their nearest clinic and injections continued during the summer months. We used the central school health records to trace the addresses of about 2,000 persistent defaulters to see if they had moved, and many hundreds had done so. The orderly filing of the thousands of completed cards which we had been obliged to allow to accumulate during June and July took over two months to complete.

Supplies of vaccine other than British-manufactured continued to be plentiful for the rest of the year, and there was an extension of the age range of those eligible so as to include all persons born in 1933 or later. There was also an extension of the special priority groups, and instructions to start giving a third or booster injection allowing an interval of at least 7 months after the second injection. We decided to concentrate on the primary injections in the 15—25 age group during the rest of the year, give appointments for boosters only to those vaccinated during 1956, and carry out a special booster campaign in the schools early the following year for those vaccinated after 1956.

The acceptance rate among the 15—25 age group was quite high at the individual factories, shops, etc. where our injection teams went, but there was a poor response to the open invitation to attend the evening clinic sessions which were arranged and advertised. By the end of the year we had vaccinated some 4,000 in this age group with fully half as many again in the middle of the course, a total of only about 12 per cent of those eligible. About a third of the expectant mothers had been vaccinated and 71 per cent of the children under the age of 15. These percentages are all above the national average.

Hollerith Punched Card Machines

These machines continue to supply a service to medical and socio-medical personnel which it would otherwise be difficult to get in Bristol as most investigations suitable for this type of analysis require the use of a counter-sorter continuously for many days or even weeks and this is difficult in a commercially-used machine installation geared to a weekly routine. The planning of the survey for analysis by punched cards also requires more time and thought than might readily be given by busy senior staff in a commercial business. In time, of course, the knowledge of the use of these techniques will become more widespread in medical circles, thus making this planning stage much easier.

Mrs. Bowerbank, Research Fellow in the University, used punched cards to summarise and analyse two budget enquiries. One dealt with the chronic sick in receipt of additional National Assistance, and the other with widows who had dependent children. Both surveys had a wealth of detailed sociological information as well as items of expenditure and it was necessary to plan two punched cards for each survey in order to accommodate all the information required in the subsequent tabulation. The findings in these two budget enquiries have now been published, but a few extra tabulations are still requested from time to time when discussions at lectures etc. show that something further would be of interest.

Dr. Wofinden used the punched cards to analyse the results of the enquiry, by the health visitors of the City during one week's routine home visiting, into how many different statutory and voluntary social workers had visited the home during the previous 6 months.

Dr. Rogan and myself investigated the heights and weights of some 8,000 schoolgirls aged 11 to 15 years along with whether they had passed the menarche or not. It is hoped that this will provide a basis of comparison for any changes in the future. The information was recorded by the health visitors when doing their routine school inspections.

Dr. Downie of the University Student Health Service extended his previous survey of the annual tuberculin tests of students so as to cover 8 years' intake of students. The analysis was completed before Dr. Downie left the City, and the results written up as an M.D. thesis.

Dr. Norman Cook added another year's data to his two sets of punched cards dealing with:—

(*a*) Illnesses treated during the year and

(*b*) Annual summary of health of the child. A considerable number of tabulations have been done on various topics including a comparison of illnesses etc. just before and just after starting school.

Miss English, mycologist, and Dr. Gibson, have used a pre-coded questionnaire planned for the punched cards to investigate some possible factors affecting the spread of *Tinea pedis* infection (athlete's foot) in schoolchildren. The main tabulations summarising the findings of this enquiry have been done, but more detailed analyses are proceeding.

Dr. C. Spencer, through Mr. Braunholz, used the punched cards to analyse his Ashley Road project. A large number of tabulations have been produced, and we are informed that more will be requested in due course.

Dr. Smallwood has extended for another year his analysis of the findings at the routine medical examinations of Bristol Grammar schoolboys. The medical and social data included is very comprehensive but it was possible by doing multiple punching in many of the columns to avoid having to use double cards for each child.

Mrs. Sheen, health visitor for the chronic sick and aged, coded a representative sample of her cases so as to supply factual information of the numbers and types of cases seeking help or advice and of the relative frequency of the kind of assistance provided. The first batch of tabulations have been completed and the detailed analysis is proceeding.

An enquiry has been proceeding at the William Budd Health Centre during the year into the reasons affecting whether a confinement takes place in hospital or at home. The questionnaires are planned for analysis by punched cards and, starting with the mother's personal choice of place of confinement before she has discussed it with the doctor, they continue to record the reasons for any change of plans occurring before the birth of the child. These will be ready for analysis next year.

Mrs. Cameron has been proceeding with her investigation of dental caries in the pre-school child and how it is affected by the bed-time snack. Punched cards have been prepared for all the completed questionnaires received and a few preliminary tabulations have been carried out.

The information on the birth notifications and death registrations continues to be coded routinely and transferred to punched cards. These are used for some of the statistical tables in this report, for the special annual summary provided early in January to the Medical Officer of Health for presentation to the Health Committee, and for statistics which have to be provided annually to the Ministry of Health. They are also used to answer special enquiries such as the incidence of leukaemia deaths in Bristol at different ages, or the steadily increasing number of births at Bristol hospitals of non-citizens.

By the use of our punched cards for deaths we were able to assist Dr. Cates, Bristol Royal Infirmary, with the formation of a diabetic register by tracing whether patients seen in hospital in previous years had since died. As the diabetes is usually a contributory, if not the main cause of death, we were able to reduce the number of records to be scrutinised by selecting with the sorting machine only those cases where diabetes had been mentioned on the death certificate.

Provision of Statistical Data

Apart from the polio vaccination there was little change in the routine work of the section dealing with the recording and provision of statistics concerning births, deaths, marriages, notifiable infectious diseases, and prophylactic procedures. We also record the weekly number of new sickness claims made at the Ministry of Pensions and National Insurance offices in the Bristol region as these are a good indicator of the presence or absence of widespread influenza, for example, or other epidemics in the working population.

We have continued to keep the senior medical staff informed daily of the individual notifications and doubtful cases of notifiable diseases, and, according to the action to be taken, transmitted the necessary information to public health inspectors, the health visitor for infectious diseases, the disinfecting station and the School Health section of the department.

Reports or statistical summaries continued to be made routinely and were presented, at intervals varying from weekly to annually for different items, to the senior medical staff of the department, various committees, the local newspapers, the Ministry of Health and the Registrar General. Requests for extra detailed information have been complied with from the ledgers, summaries and punched cards which are kept.

Numerous requests for current statistical information about Bristol or the country as a whole are received from persons outside the Health Department and these requests are met wherever possible. The simplest and most frequent enquiry is for the current population of Bristol, but occasionally we may be asked to estimate the numbers in various age groups, which was last known accurately at the time of the 1951 census, or in different areas of the City. For example, one of our more progressive stores in the Broadmead shopping area wanted to know the populations in various areas when the revision of the City bus routes gave direct services between it and some new districts.

Application of Statistical Techniques

Statistical advice and computational assistance are provided whenever requested by a member of the Department and also, when at all possible, when requested by doctors or medical personnel working in Bristol.

The range of assistance is very wide and extends from providing a ready reckoner for the wages and overtime of hourly-paid staff, calculating percentages or rates required in reports, or advising on suitable methods of presenting numerical data whether graphically or otherwise and, perhaps, providing the completed graphs, to calculating the probability of differences in incidence happening by chance, or doing the lengthy statistical analyses necessary for the proper evaluation of, for example, the information acquired in the enquiry mentioned above into the age at menarche in Bristol. Here, because of the varying numbers seen at the different ages and because the very early and very late cases were not questioned, it was not possible to use a simple average, but required the use of a much more time-consuming method known to statisticians as probits, in order to calculate accurately the age at which exactly half the girls have started menstruating.

The different subjects which were covered during the year included the infection of Bristol schoolchildren by *Tinea pedis* or athlete's foot, the distribution of heights and weights of Bristol schoolgirls aged between 11 and 15, a comparison of these according to the age of puberty and according to some groups of schools, a comparison of normal men and women and those with certain diseases with respect to the fragility and blood pressure of their capillary bloodvessels and of how these change with age, the nucleus size of certain body cells in pernicious anaemia as compared with those of healthy people, anaemia and the giving of extra iron to pregnant women, blood-clotting factors, transient bacterial infection of the blood after certain surgical operations, skin and eye infections in the very young baby, and illnesses in children just after starting school.

Records and Record Systems

The Ministry of Education increased this year some of the statistical information which had to be supplied relating to medical inspections in schools. All the statistical records had to be revised and the opportunity was taken to review all the processes necessary with the record cards after a medical inspection session. It was decided that a considerable saving of time could be effected if, after initiating the necessary action for cases requiring treatment, the whole of one week's cards could be handled together taking them as a batch through each of the various statistical and indexing operations in turn. This meant that we would no longer have separate statistics of defects etc. for individual schools, but the staffing position was such that we decided to forego these. An intermediate statistical sheet was devised for the various types of inspection in such a way as to avoid the errors which can happen so easily when multiple entries under different headings have to be made from one record by a clerk frequently interrupted in the middle by the phone, etc. The new procedures proved their worth during the year, and a rearrangement of filing cabinets involving the use of bays rather than long rows and a necessary overflow into the corridor allowed better working space for the clerks dealing with the school medical records.

Numerous forms and records had to be devised for the poliomyelitis vaccination campaign so as to provide the information required for the inoculation of the individual person as well as the ever-changing statistical returns to the Ministry of Health and our own more detailed statistics showing the numbers waiting in the various categories by year of birth, type of vaccine, length of time registered and whether the inoculation was to be done in clinic, school or doctor's surgery.

Assistance was given in drafting a variety of routine medical records including some on hearing assessment in young children and a pre-school health summary.

Lectures, Demonstrations, Discussions and Reports

The health visitor students spent a day discussing Public Health Department records, co-ordination within the National Health Service, and good record keeping, seeing how the different punched card machines work and how their use has affected the questionnaires used for special enquiries.

Lectures were given to medical and veterinary undergraduates on statistical methods, to public health inspector students on vital statistics, and to doctors studying for the Diploma in Public Health on medical statistics. With the help of the University photographer, and a number of evening sessions by myself selecting suitable statistical material and planning the graphs, charts, etc., a library of slides for teaching purposes is being built up.

There have been a number of demonstrations of statistical machines to groups of students visiting the Department and discussions on record systems in general with trainees from a hospital and a Public Health Department, various W.H.O. administrative public health officers, and other visitors to the Department.

There were many discussions and reports throughout the year on proposed enquiries or matters under investigation, especially when these involved selecting a representative sample, using or adding to current records or routine statistics, or devising special statistical techniques.

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INTRODUCTION

I have much pleasure in presenting the Annual Report of the School Health Service for 1958, the fifty-first report of the series. Though there have been no outstanding advances during the year, the standard of health and well-being of the children of the City has been well maintained. No new clinics were opened during the year, but the clinics which have been established in recent years to serve the newly developed housing estates on the outskirts of the City, continue to provide a valuable medical and dental service for Bristol children.

Mr. W. H. B. Stride, the Principal School Dental Officer, retired at the end of June having reached retirement age. Mr. Stride joined the service of the Authority in April 1921, and has therefore been concerned with the School Dental Service almost since its inception. He was appointed Principal Dental Officer in 1933. Mr. Stride has always devoted himself wholeheartedly to the dental care of Bristol children. He was kindly in his approach to his young patients and under his direction, the dental service in Bristol has attained a high reputation both with the parents and children, and with the school staffs. I should like to place on record our appreciation of Mr. Stride's services to the school children of the City, and to wish him every happiness in his retirement. He has been succeeded by Mr. J. McCaig, L.D.S. who took up duty on the 17th November 1958.

The dental staff position improved a little during the year. No resignations occurred, and we were able to make two additional appointments, Mr. Nicholls in July, and Mr. Ramsden in September. These additions to the staff have enabled us to provide a better dental service at some of the outlying clinics.

This year also marks the retirement of Miss M. Sharwood as Head of our Elmfield School for Deaf Children. Miss Sharwood has held this post since 1942. She has always had a devoted interest in the children in her charge, and under her leadership Elmfield School has become recognized as one of the foremost day schools for deaf children in the country. She has contributed an interesting report on the developments in the education of deaf children in Bristol during her period as Head of the school (page 14).

The year 1958 has proved to be a quiet year from the point of view of infectious disease, the figures of measles and whooping cough cases being much lower than in 1957, and cases of scarlet fever about the same. Once more there has been no case of diphtheria amongst Bristol school children and there has in fact been no diphtheria in the City for the past nine years.

An intensive campaign of vaccination against poliomylitis was undertaken through the schools and clinics early in 1958 when the vaccine supply position improved sufficiently to enable the age range of children taking part in this scheme to be increased to include children up to 15 years of age. Over 35,000 children received a course of two injections, either at the schools or the clinics during the year. Only one case of poliomyelitis occurred amongst children of school age as compared with 29 cases in 1957. Whilst it is too early yet to say that this is due to the vaccination of the children, it is to be hoped that with the increasing number of children vaccinated against poliomyelitis, this disease will, like diphtheria, become a rarity in the City.

During the year an intensive effort was made by the nursing staff to try to reduce the amount of infestation amongst school children in one area of the City.

Though on the whole the incidence of infestation is steadily declining in the City, there are one or two schools where it is still a problem. Though a very good result was achieved by this effort, there is little doubt that constant supervision will be needed for some time to come to maintain a good standard of cleanliness in these particular schools.

A brief report is given by Dr. D. J. Sheerboom, one of the Authority's medical officers on an outbreak of sonné dysentery which occurred during the year involving food served in the School Meals Service (Appendix "A", page 54).

Dr. E. Rogan in the report for 1957 gave an account of a survey which was begun into the commencement of menstruation amongst Bristol school girls. This survey was concluded in 1958 and Dr. Rogan's completing report is given in Appendix "B" (page 55).

In Appendix "C" a short report is given by Miss C. E. Cooke, M.B.E., Senior Woman Organiser of Physical Education on accidents in schools during the year, particularly those in secondary schools (page 61).

Our good relationships with the hospital services, and general practitioners have continued during the year, and have contributed in a great measure to the efficient working of the services.

I should like once again to express our thanks to Mr. G. H. Sylvester and his staff, in particular the teachers and the school welfare officers, for their ready and willing assistance at all times in any matters concerning the health and welfare of the children. I am particularly grateful to the Heads, and staffs of schools for their help and co-operation in the vaccination against poliomyelitis campaign which was carried out in the schools during 1958.

I should also like to record my thanks to Dr. A. L. Smallwood, the Senior Medical Officer of the School Health Service for his help in preparing the Report, and to Mr. J. H. Middleton for editing and collating the various contributions.

R. C. Wofinden,
Medical Officer of Health and
Principal School Medical Officer.

CHILD GUIDANCE CLINIC

R. F. Barbour

Changes of Staff

On Dr. Heron's retirement in 1957, the Regional Hospital Board was approached with a view to providing part of the psychiatric services of the Clinic. This they agreed to, and on the 1st May, 1958, the services of a Consultant in Child Psychiatry for four sessions a week were made available. The appointment of Dr. H. S. Coulsting as Consultant was especially welcome as he had been Director of the Child Guidance Clinic at Cheltenham.

The Regional Hospital Board also provides six sessions per week of Registrar time. On the 30th June 1958, Dr. James Warner, the part-time Registrar left, and on the 10th July 1958 he was replaced by Dr. W. Johnson.

Dr. M. Mair, whole-time School Medical Officer, was seconded for part-time work at the Child Guidance Clinic to replace Dr. Kaye, and joined us on 30th January 1958.

Mr. C. J. Beedell, after his appointment as Research Psychologist at the University of Bristol, was kindly allowed to continue working at the Child Guidance Clinic, but as his other commitments increased, he gradually had to withdraw from the work here, until he finally left us in June 1958.

Miss M. M. O'Flynn, Psychologist, left us on the 31st August, 1958, to take up a post in London and her place was filled by Miss Kathleen Craib, M.A., B.Ed. on the 1st September, 1958.

During 1958 the Health Department appointed three whole-time psychiatric social workers. For a trial period it was decided to arrange a limited interchange of the psychiatric social workers employed by the Local Education Authority and the Health Department. Miss Brenda Stubbs, Miss Joyce Laver, and Miss Patricia Birkett, on the staff of the Health Department, have been doing part-time work at the Child Guidance Clinic during the last six months of 1958, while at the same time the psychiatric social workers at this Clinic have been holding sessions at the Maternity and Child Welfare Clinics on the outskirts of Bristol.

Miss Margaret Astley, psychiatric social worker, part-time, left us on 13th February 1958 to go to London.

Mrs. Joan Scrine, who was previously a psychiatric social worker on the Clinic staff in 1951, rejoined us in a part-time capacity on the 12th May, 1958.

Annual Statistics

Psychiatric	*1953*	*1957*	*1958*
Diagnostic interviews	317	362	360
Physical examinations	290	351	337
Treatment interviews	1128	1336	1295
Parent interviews	131	158	117
Others interviewed	4	8	10
Psychological			
Examinations, including Juvenile Court cases	504	639	558
Treatment interviews	1061	1010	999
Parent interviews	163	122	141
Others interviewed	14	15	27
Other visits	64	104	126
Social			
Interviews with parents	1466	2157	2068
Interviews with others	13	7	8
Home visits	90	203	223
Other visits	1	17	27

The above statistics, although representative of the work done at the Clinic, are in a sense uninformative. The emotions do not lend themselves to statistical analysis. It is difficult to know, let alone prove, the benefit that the community may be receiving from a preventive service, but I am still impressed by the fact that so few enquiries are received from psychiatric hospitals for details regarding treatment at the Clinic, at an earlier date, of their patients. This could, of course, be explained on more than one ground, but as this Clinic has been in existence for twenty-two years, by now a large proportion of the early cases have had plenty of opportunity to break down. During the last year, we have had three such enquiries.

The main problems of the last year have been in a sense administrative and concerned with the inter-relationships of staff personnel. The "essence" of psychotherapy is emotionally secure individuals satisfied with their work, who are able to give their clients a similar feeling, so that the family's emotional difficulties can be discussed in an objective fashion. For this type of work it is essential that clients see the same person at each visit, otherwise they may feel rejected or aggrieved, even though the notes made by someone else may give a very fair picture of what had previously occurred.

To keep this continuity while a service is expanding, both through increased numbers of staff and by work in perimeter clinics, is not easy. The balance has to be kept between the benefit gained by good team morale when a small integrated team work regularly together, and on the other hand the educative effect of working with a greater variety of people with differing experiences. This is a problem which faces many case workers at present, as the increasing realisation of the importance of mental health often involves the dovetailing of the work of several departments. Time spent on case conferences can be wasteful, yet somehow the field workers have to meet and learn to trust each other's judgment. Is it better to have one worker covering a specialised subject over a wide area, or is it better to have a worker with greater knowledge covering all types of problem in a single locality? Each Local Authority will obviously solve these problems in its own way, depending in part on the personalities of the people working in the area concerned. There is however, a considerable need for more knowledge in these matters so as to get the maximum effect in a field where there is a definite shortage of skilled workers.

During the year two small pieces of research have been carried out. The first deals with the differing effects on different social groupings of an unsolved murder of a child. In casual conversation the professional members of the staff had felt that the local reaction had died down some six months after the incident. A psychiatric social worker was asked to make enquiries at the schools in the neighbourhood, to visit the local parks and to engage in conversation those who would be knowledgeable of the local reactions. She discovered that the pattern of play in the neighbourhood had altered, that children were still being kept away from certain areas, and that the incident still provided both parents and children with a focus for their fears.

The second piece of research was concerned with the needs of the parents of spastic children. This was a pilot experiment, as the Headmistress of the local school felt that not a few of the parents required guidance. As the interest in spastic children increases, so one becomes more aware of the problems they present to their parents. Some parents still expect that their grossly handicapped children will prove to be relatively normal, and for instance be able to marry and bring up children, when it is only too clear that this is really a question of wishful thinking. Other parents still have a sense of guilt regarding these children and swing from over-protection to rejection. All handicapped children are liable to produce special problems for their parents and there is scope for preventive work if the parents, say of partially sighted or deaf children as well as spastics, can be gathered together and their mutual problems ventilated in an objective and therapeutic way.

CHILDREN'S CHEST CLINIC

D. J. Sheerboom

This Clinic continued to function on the same lines as in the past three years. As before, the type of case seen was not confined to asthma alone, but included bronchitis, repeated upper respiratory infections, hay fever, and even cases where the mother herself felt that the child was "chesty". Many of the latter cases purely required reassurance given to the mother and so the discharge rate has again remained high.

Skin testing was not done as a routine, but two children were given courses of anti-pollen vaccine, with, so far, beneficial effect.

Once again, use was made of many other sections, of which the Physiotherapy section took the main brunt of the work, with, on the whole, very satisfactory results. Seven cases were referred to the E.N.T. Consultant, the majority because of enlarged and infected tonsils and adenoids, the chest symptoms clearing up soon after the operation. The Open Air School, and the Child Guidance Clinic were not needed so much this year, but very helpful advice was always readily available from the latter. A few cases were also sent to the nutritionist regarding obesity, which was found to be the main cause of their shortness of breath.

However, one of the most useful functions of the Clinic, is the general advice given to parents regarding their attitudes to their children and school. The tendency is still one of over-protection, especially in the case of asthma, and much valuable school time is lost. Once their co-operation is obtained, they are usually amazed to find that going to school does no harm, and in many cases the child is actually better.

The statistics relating to the work in the Clinic during 1958 are given below. The ages stated are for the new cases only so that some idea may be given as to the usual age of referral.

Total attendances	258
Total number new cases	39
Total number of patients	108
Sex Ratio: male, female	76:32 = 2·4:1
Age 10+	6
Age 5—10	25
Age under 5	8
Discharges	42
Ear, Nose and Throat Consultant	7
Open Air School	4
Child Guidance Clinic	2

CHIROPODY CLINIC, 1958

L. I. W. Tasker

There was another small decrease in the number of children attending for foot treatment in 1958. Although the number of cases of *Verrucae* seen for the first time was slightly higher, the number of treatments necessary was reduced. This may possibly be due to many of the children having attended local clinics for some time and consequently needing only one or two further treatments to clear up the condition.

The numbers attending for other defects remained very much the same as previous years and approximately 30 cases were referred to the Orthopaedic Department for further advice or physiotheraphy.

Attendances 1958

Defect	Primary, Secondary and Grammar Schools		Maternal and Child Welfare	
	1st Att.	Other Att.	1st Att.	Other Att.
Hammer toes	9	53	—	—
Metatarsalgia	1	6	—	—
Verruca	514	1,867	—	—
Hallux Valgus	10	28	1	1
Strain	8	10	3	1
Miscellaneous	172	279	—	—
TOTAL	714	2,243	4	2

Athlete's Foot Survey

Mary D. Gibson
Mary P. English

In 1956 it was decided to commence an investigation in the schools, of children suffering from that skin disease known as "athlete's foot" of which a large number had been attending the clinics. This investigation into the incidence, causation and mode of spread of this condition and the various methods of prevention has been continued since that time, and accounts of the progress and investigation were presented in the reports for 1956 and 1957. The following report gives an account of the work done on this investigation during 1958.

Second visits were paid to three boys' schools visited during the previous year. In two of these schools the number of boys with a fungus infection had fallen considerably during the year—in the third where, as far as we have been able to ascertain, treatment if sought at all had not been persevered with, the incidence had nearly doubled.

The families of children suffering from a *Trychophyton Mentagraphytes* infection in one senior boys' and one senior girls' school took part in an extension of the original survey. This was undertaken to see if this fungus showed a similar pattern of spread to that of *Trychophyton Rubrum* as found by one of us (M.P.E.) in a previous investigation.

The epidemiology of *Trychophyton Mentagraphytes* appeared from this group to be different in several aspects from that of *Trychophyton Rubrum.*

As we felt that the average age of the families might be greater in the *Trychophyton Rubrum* group, we undertook a second family survey by kind permission of Dr. Warin, Dr. Evans, and Dr. McLaren. In this second group, the original case infected with *Trychophyton Mentagraphytes* had attended one of the three Consultant Dermatologists at their clinics at the Bristol General Hospital or Weston-super-Mare Hospital.

Much help was given by Miss Duncan, Records Officer, in the drawing up and interpretation of a questionnaire on various factors which might influence the spread of this infection such as footwear, swimming habits, use of shower-baths, barefoot physical exercises and dancing, cleanliness, etc. This necessitated revisiting the schools taking part in the 1957 survey.

Finally, during the latter part of the year, with the help of Dr. E. C. Bernard (the Medical Officer of the School) and Dr. Cayton, the boys attending a local independent boarding school took part in a more comprehensive investigation into the mycological, bacteriological and excematisation factors involved in the causation of "athlete's foot".

Detailed results of this work will, it is hoped, be published in the medical press in the near future.

DEATHS OF SCHOOL CHILDREN

A.L.S.

The number of deaths among children of school age during the year was 23, 13 boys and 10 girls. This compares with 27 in 1957 and 25 in 1956. The greatest single cause of deaths this year was acute leukaemia which was responsible for the deaths of 5 children, 4 boys and 1 girl. There were 2 deaths from cerebral tumour and 2 from encephalitis following rubella. It is gratifying to be able to record that the deaths attributable to road accidents were only 2 this year as compared with 5 in 1957. The causes of deaths among school children are given in the table below:—

	Boys	*Girls*
Acute leukaemia	4	1
Encephalitis	1	1
Myocarditis	1	—
Acute rheumatic heart disease	—	1
Cerebral tumour	—	2
Congenital hydrocephalus	1	1
Congenital pulmonary stenosis	—	1
Pseudo hypertrophic muscular dystrophy	1	—
Cerebral palsy	—	1
Spontaneous hypoglycaemia	1	—
Road accidents	1	1
Other accidents	2	1
Death during operation	1	—
Totals	13	10

DENTAL CLINICS

J. McCaig

The staffing position at the end of the year was equivalent to nearly 13 full-time dental officers made up in the following way:—

11 full-time dental officers (including the P.S.D.O.).
7 part-time dental officers—giving sessions equivalent to about 1·8 full-time officers.

The total number of sessions given by part-time dental officers to the Service during the year, including both School Health and Maternity and Child Welfare Service, was 1,037.

The number of children inspected in schools during the year was 46,235 and the number treated, 17,699.

Children attending the residential schools maintained by the Local Authority receive a dental inspection on their return to Bristol at the beginning of each holiday period and appointments are offered to those requiring treatment which is carried out at the clinics during the holidays.

The Department of Children's Dentistry at the Bristol Dental Hospital continues to inspect and treat a number of Bristol school children. The figures of the work carried out during 1958 are:—

No. of children inspected	1,343
,, ,, found to require treatment	1,077
,, ,, treated	235
Total attendances	1,852

Maternity and Child Welfare Service

The number of mothers attending for treatment during the year was 957 and pre-school children 1,465.

Orthodontic Clinic

The Consultant Orthodontist from the Dental Hospital attends on one session per week at the Central Health Clinic. Children are inspected and those requiring treatment by appliances are all referred to the Dental Hospital. Children requiring treatment by extraction are referred to their respective clinics. Urgent cases have to wait about two months, non-urgent cases six months.

The statistics relating to the children seen during 1958 are given below:—

No. of new patients	627
No. of attendances for consultation	853
No. of attendances for impressions	385
No. referred to Dental Hospital	434
No. of treatments completed	28

Oral Hygienist

The prophylactic work carried out by the Oral Hygienist is beneficial to the children and mothers. Lectures and talks are given in the schools and at the Clinics and every opportunity is taken to give advice in oral hygiene.

No. of children seen by the oral hygienist	1,194
No. of attendances for treatment	1,545
No. of mothers seen by the oral hygienist	100
No. of attendances for treatment	162

Dental Technician

Output from the laboratory is tabulated below:—

No. of dentures for mothers	201
No. of dentures for school children	113
No. of repairs for mothers	9
No. of repairs for children	20
No. of inlays	9

EAR, NOSE AND THROAT SERVICE

H. D. Fairman

The routine work of the E.N.T. Service has proceeded without interruption during the year. The number of children suffering from repeated attacks of upper respiratory infections and requiring operative treatment for the removal of tonsils and adenoids and the eradication of nasal sinus infection, does not seem to have diminished, notwithstanding the improvement in living conditions, as a whole, throughout the City.

During the past year the number of children suffering from aural defects attending the Clinic was 416 (including 34 pre-school cases).

Out of a total of 120 new cases of middle ear suppuration found at medical inspections, 61 failed to clear up with a few weeks routine treatment at the minor ailment clinic, and were therefore referred to the Aural Clinic. Only 14 of these cases were outstanding at the end of the year (10 attending for treatment, 1 absentee and 3 having left school).

A great effort has been made, and is continuing, to comb the child population for cases of deafness and partial deafness. An interesting fact is that no case of deafness so severe as to require education at Elmfield School for the deaf, has been found, and that there is now no waiting list for entry to Elmfield School. Many cases of partial deafness have been discovered. Of these, a number cannot be improved by treatment but a larger number have been due to catarrhal otitis media and there has been something of an epidemic of hydro-tympanum or the accumulation of mucoid secretion in the middle ear. The cause for this increase in hydro-tympanum is not apparent, but it may be that the common use of antibiotics in cases of acute otitis media has led to a number of cases of sterile effusion in the tympanum.

The work of the Hearing Assessment Clinic has been developed and an attempt to offer this as a regional service has been made. As a result of the work of this clinic, a number of cases of severely partially deaf children have been discovered for whom no appropriate educational provision is as yet available. These children hear too well to be sent to the school for the deaf, and are too young for the partially deaf unit at Eastville School; the need is for a nursery school for the severely partially deaf. Until this is available it will prove a great problem to place these children in a suitable educational environment.

EMPLOYMENT OF CHILDREN

L. A. Tavener

During the year ended 31st December, 1958, appointments for medical examinations were made for 766 children. Of these, three did not keep their appointments and two were found to be unfit. Two were granted temporary certificates, but were later re-examined and full certificates granted. The remaining 759 were found fit, and registered for part-time employment.

The total number registered was 34 less than during 1957, but the average number employed at any given time rose from 455 in 1957 to 479 in 1958.

Thirty-nine Bristol children were examined and found fit to take part in public entertainments, including 17 girls who appeared in the 1958/59 pantomime at the Bristol Hippodrome. Two children who attend Bristol Schools, but reside just outside the City boundary, were examined by arrangements with the Somerset Authority.

The types of employment in which the children registered were engaged is shown by the following table:—

Trades	*Boys*	*Girls*	*Total*
Newsagents	623	57	680
Multiple stores	—	35	35
Butchers	8	—	8
Grocers	19	—	19
Others	5	14	19
TOTAL	655	106	761

We have had very few cases of unfitness over the past few years; one being a boy who was due for an operation, but he was passed fit about a month afterwards. There have also been a few cases of asthmatics, who have either been refused or have ceased employment, and withdrew their application for registration.

The local Bye-Laws do not permit any morning employment on school days for children of compulsory school age. It has been noticed that there has not been any case where a child, having changed his employer, on being medically re-examined has been found unfit for further employment.

There is no evidence to indicate that the health of these children really suffers, provided the conditions and restrictions contained in the Bye-Laws are observed.

ENURESIS CLINIC

J. E. Kaye

During the year the work of the Enuresis Clinic continued on the same lines as in previous years. Usually four sessions a week were given to this work. Altogether 268 children attended the Clinic during the year and of these, 38 were discharged as symptom free after at least six months observation, and 77 failed to keep their appointments and were discharged. Some of these children were improving, but the majority of them had attended only on one or two occasions. At the end of the year there were 153 children remaining under treatment.

The Enuresis Clinic works in close co-operation with the Child Guidance Clinic and all children with serious psychological problems are referred there for full investigation and treatment. General medical treatment is of first importance, especially of any urinary defects or any other abnormalities which may impair health. All cases presenting serious medical problems are referred to the Children's Hospital.

As in previous years, in treating enuresis our main aim was to try to straighten out problems of our patients and to improve relationship between parents and the unfortunate child, spare him humiliation and make life less miserable for him. The vast majority of enuretic children have a family history of enuresis. There are families where several members are enuretic, including a parent. In other families one can find a history of enuresis for several generations back. It is surprising that sometimes a parent who was enuretic proves most intolerant towards the enuretic child.

It is our experience that drugs by themselves are of little help and far more important is to gain the child's confidence and to help him build up self-confidence and give him continuous support. This can be achieved only with the full co-operation of the parents. Unfortunately, in many cases they do not co-operate at all.

There is however, quite a number of enuretic children who are well adjusted socially, come from good, happy homes, who are healthy and perfectly fit and who do not respond to treatment.

It is hoped in the coming year that it will be possible to try with these patients the use of a nocturnal enuresis electrical alarm. This is a mechanical device which will wake up the child at the beginning of micturition and this eventually should establish a conditioned reflex so that the child will wake up before wetting himself. This method is claimed by some to give very good results and it will be interesting to see what success is achieved by its use.

EYE CLINICS

R. R. Garden

During 1958, examinations for refractive errors were carried out for 4,516 children. Most of these came as a result of medical inspections in schools or through the school clinics, a minority being referred from other sources. In addition 907 re-examinations were made, making a total for the year of 5,423 examinations. Glasses were not required in 1,419 cases and of the 2,308 pairs of spectacles prescribed the great majority had been obtained by the end of the year.

For many years past, the writer has held periodical consultant sessions for children with other than the routine ophthalmic problems and, on his retirement from his National Health Service appointments in March, it was considered desirable to continue for the present the existing arrangement for the examination of children with serious visual handicaps who might require special forms of education. To this extent, these sessions continue as before, but otherwise the work has been taken over by Mr. P. Jardine, who has joined the consultant staff of the School Health Service.

The surgical treatment of squint is carried out at Bristol Eye Hospital, and 161 operations for this condition in Bristol school children took place during 1958. Each case undergoes preliminary investigation at the Orthoptic Department of the Eye Hospital or of the Central Clinic, and a period of orthoptic treatment may precede or follow the operation.

At the Central Clinic, the Orthoptic Department has amply justified its existence, and to the ophthalmologist working there the presence of an orthoptist in the next room, ready to co-operate in the management of a case, is a great convenience. It should be noted that Miss M. J. Smith, who is in charge, also spends part of her time (3 sessions a week, and extra sessions as holiday relief) at the Bristol Eye Hospital, where an orthoptic service is also provided for considerable numbers of Bristol school children. She reports as follows on the year's orthoptic work at the Central Clinic:—

Number of sessions	345
New cases	240
Old cases	1,418
Total attendances	1,658

Two sessions were devoted to detecting visual errors in five year old children at two schools, and this work will continue as time and opportunity permit.

HANDICAPPED CHILDREN AND SPECIAL SCHOOLS A.L.S.

Blind Children

There has been very little change during the year in the number of blind children being dealt with by the Authority. The Royal School of Industry for the Blind continues to cater for most of the blind children in Bristol, there being 18 children, 16 boarders and 2 day pupils in attendance at the end of the year. In addition, there was one boy at the Royal Normal College for the Blind, and one boy at the Worcester College for the Blind. Details of the placement of the Bristol blind children at the end of the year are as follows:—

	Boys	*Girls*	*Total*
Royal School of Industry for the Blind, Westbury, Bristol:			
Residential Pupils	10	6	16
Day pupils	1	1	2
Royal Normal College for the Blind, Shrewsbury	1	—	1
Worcester College for the Blind	1	—	1

Partially Sighted Children A.L.S.

In September the second class for partially sighted children was brought into being in a new prefabricated hut in the grounds of South Bristol Open Air School. This provides much better facilities than hitherto for these handicapped children and for some of the functions of the school day, the partially sighted and physically handicapped children are able to mix to their mutual advantage. Many partially sighted children have other handicaps and in consequence need more individual attention. It is of interest to note that two of the girls who were in attendance at the Chorley Wood College for Girls, Hertfordshire, have been successful in passing in some subjects in the G.C.E. examination and one has been accepted for training at a teachers' training college in Bristol.

At the end of the year, the number of partially sighted children attending the unit at South Bristol Open Air School and other schools was as follows:—

	Boys	*Girls*	*Total*
South Bristol Open Air School	13	4	17
West of England School for Partially Sighted Children, Exeter	1	2	3
Exhall Grange School, Coventry	1	—	1

Deaf Children

Elmfield School for Deaf Children A.L.S.

A veritable quiet revolution is going on in the education and training of children who are deaf with the modern emphasis on making use of every remaining particle of hearing. There has been universal recognition of the need for group hearing aids for children who were formerly regarded as entirely devoid of hearing. Proposals were therefore, made during the year for the re-equipment of a number of rooms at Elmfield with group hearing aids both of the direct and loop inductance type, and it is expected that this work will be completed by the end of March, 1959.

At the end of the year individual hearing aids of the new transistor type were anxiously awaited for pupils who were formerly issued with the Medresco two pack type. It is regrettable that these new type hearing aids, so long promised, have proved to be so tardy in making their appearance. It is however, now expected that most of the children at Elmfield will be provided with transistor type aids with the loop induction coil during the Spring Term of 1959.

A major event in the world of deaf children occurred in July when an international congress was held in Manchester and this was attended by a School Medical Officer of this Authority, an Ear, Nose and Throat Surgeon, and the Head and three other teachers from the School for the Deaf. One of the main themes at this congress was the need to make use of every vestige of hearing remaining to the deaf child, and it was apparent that in many countries of the world, very active steps are taken to make this possible.

At the end of the year there were 46 deaf children (22 boys and 24 girls) in attendance at Elmfield, including 7 children from other Authorities. In addition the following children were being maintained at various residential schools at the end of the year:—

	Boys	*Girls*	*Total*
Mary Hare Grammar School, Newbury	2	—	2
Mill Hall Independent School, Cuckfield, Sussex	—	1	1
St. John's Residential School for the Deaf, Boston Spa, Yorks.	2	—	2
Burwood Park School for the Deaf, Surrey	1	—	1
Royal West of England School for the Deaf, Exeter ..	—	1	1
Lawns House School for the Deaf, Leeds	—	1	1

In addition, two deaf/E.S.N. children were being maintained in residential schools at the end of the year, as follows:—

	Boys	*Girls*	*Total*
Rayners School for the Deaf, Penn, Bucks.	—	1	1
Bridge House School, Harewood, Yorks	1	—	1

Miss M. Sharwood, who has been the Head of our Day School for Deaf Children since May 1942, retired at the end of 1958. She came to this Authority from the Ackmar Road School for the Deaf, London, and at the time of her appointment the School had been evacuated to premises at Ledbury, Herefordshire, and returned to Bristol at the end of 1944.

Miss Sharwood has always had a devoted interest in deaf children and under her leadership excellent work has been done in the care and education of Bristol deaf children. She will be succeeded by Mr. R. E. Olding who has been appointed in her place and will take up duty on the 1st January 1959. He comes to us from the Royal West of England School for the Deaf, Exeter.

Miss Sharwood has contributed the following interesting report on the developments in the education of deaf children in Bristol during her period as Head of our School for the Deaf:

" The Bristol School for the Deaf was evacuated to Ledbury, Herefordshire in January 1942, and remained there until December 1944. During this period the children's education was carried on under difficult and trying conditions.

The school re-opened in the infant and junior departments of the Shirehampton Primary School in January 1945 and was moved to its present attractive premises at Westbury-on-Trym, in November 1947.

The implementation of the Education Act of 1944 and the developments of the post-war years have brought a more extensive and more varied education for children handicapped by deafness. New and better opportunities are now offered for education according to the children's ages, abilities and degree of hearing loss.

The main trends discernable in new developments of the education of deaf children are:—

1. The greater emphasis placed on early detection of deafness and the establishment of Guidance Clinics for parents and their deaf children of pre-school age.

2. The improvement in design and construction of electrical hearing aids, and speech training equipment and the more extensive use of these aids in the children's education.

3. The more varied educational opportunities offered to deaf children by the provision of:—

(*a*) Secondary education through the establishment of the Mary Hare Grammar School (1948) and The Burwood Park Secondary Technical School.

(*b*) The opening of more schools and units for partially deaf children.

(*c*) Experiments in the integration of deaf children into normal schools.

4. The establishment of Parent-Teacher Associations.

Development in the education of deaf children in Bristol has proceeded along the following lines:—

1. *The establishment of an Assessment of Hearing Clinic* in October 1951 at the out-patient's department of the General Hospital, the main aims being:—

(*a*) Diagnosis of deafness
(*b*) Advice and help to parents
(*c*) Educational recommendation

The scope of the work of this clinic has since been extended to include pre-school training through lip-reading and auditory experience.

The Clinic now functions at the Central Health Clinic with regular weekly sessions.

2. *Hearing Aids*

Following the move of the school to Westbury-on-Trym in November 1947, a classroom was acoustically treated and the group hearing aid (Multitone) used prior to evacuation, installed.

In 1955 improvements to the building were carried out, including the enlargement of the auditory training room and an up-to-date group hearing aid (Phillips) replaced the former model.

Medresco individual aids (Duopack) were gradually obtained for all the pupils.

Today Monopack aids, more attractive in efficiency and design and weighing only a few ounces, are being issued to the children.

The Bristol Education Committee have in hand plans for acoustically treating all the classrooms and for installing modern group hearing aids and the induction loop system.

The children will thus have the benefit of stimulations of residual hearing, combined with lip-reading for all oral lessons.

Two portable speech training hearing aids (Amplivox) have been acquired. These are essentially designed for the development and improvement of individual deaf children's voices and speech, particularly during the early stages of their education.

3. *More varied educational opportunities provided*

(*a*) *The Partially Deaf*

In March 1953 a fully qualified and experienced teacher of the deaf was appointed as a peripatetic teacher to partially deaf children in ordinary classes, in normal schools.

She assists the children by giving instruction in lip-reading, supervises the use of individual hearing aids, and gives speech training.

Arising from this work it was ascertained that some of the partially deaf children were failing to hold their own in normal classes and needed more specialised educational treatment. Subsequently a Partially Deaf Unit for children of junior school age was established at Coombe Road Primary School, Eastville. A room on a quiet side of the school was acoustically treated and modern hearing aid equipment installed.

The unit was opened in September 1957 with accommodation for ten children in charge of a fully qualified teacher of the deaf.

(*b*) *Secondary School Education*

Two children from the Bristol School for the Deaf have, in recent years, obtained places at The Mary Hare Grammar School, and one has obtained a place at the Burwood Park Secondary Technical School.

4. *Parent-Teacher Association*

Following the return of the school to Bristol, after evacuation, a Parent-Teacher Association was formed, based on the realisation that a deaf child needs the maximum help that can be given through co-operation of the school and home.

Meetings and social functions are held regularly to which parents can look for help and information concerning the education of their children, and through which teachers can gather information about the children's home life."

Partially Deaf Children

A.L.S.

The one class unit maintained as part of the primary school at Eastville Junior Mixed School under the Headmaster, Mr. R. G. Lewis, with Mrs. Rushmer as the teacher, has continued to function most satisfactorily throughout the year. It is apparent to any visitor to the class what a harmonious relationship has been built up within the class and between the class and the school. Throughout the year the unit was full with 10 children on the registers and there is some slight evidence of pressure of cases suitable for admission. The greatest need at the moment appears to be provision for young partially deaf children. If there are 10 children between 7 and 11 years of age who could profit by the special educational treatment provided in this way, it would seem that there ought to be a similar number between the ages of say, 3 and 6 years who would benefit by early education and training. Some of these children have already been ascertained and are on the waiting list for admission to the Eastville Unit in due course, but at present it is only possible to provide them with some intermittent help by means of visits to their schools by the peripatetic teacher of the deaf, or from the pre-school training clinic of the Local Health Authority. Whether such a unit should, or could be, provided in an Infants' or Nursery School it may be for others to decide, but certainly the need is there.

At the end of the year, in addition to the six partially deaf children at Elmfield and the special class at Eastville Junior Mixed School, the following partially deaf children were being maintained at residential schools.

	Boys	*Girls*	*Total*
Tewin Water Residential School for Partially Deaf Children, Hertfordshire	1	—	1
Ovingdean Hall Residential School, Brighton	3	—	3

Unit for Partially Deaf Children at Eastville J.M. School

R. G. Lewis

A unit equipped to receive up to ten partially-deaf children of the seven to eleven years age group was opened at Eastville Primary School in September, 1957 with a qualified teacher of the deaf. Prior to this, partially deaf children were educated in "hearing" schools with help from a peripatetic teacher of the deaf, at Elmfield School for the Deaf, or at residential schools.

The room selected at Eastville was acoustically treated and a Phillips group hearing aid with ten sets of ear mould insert receivers and six microphones was installed. A gramophone which could be fed into the aid was included. Recently a Clarke and Smith tape recorder has been supplied and the loop induction apparatus is to be fitted shortly. Ten Permoflux high fidelity moving coil headphones with doughnut acoustic pads have been supplied and are to be fitted when the group aid has been adapted to give binaural control with calibrated output.

The children have been drawn from "hearing" schools on the recommendation of the peripatetic teacher of the deaf, some from Elmfield School for deaf children and one has been sent by the Gloucestershire Education Committee. They are met at a central point and escorted to Eastville by a guide.

The degree of deafness and language attainment varies considerably and includes children with perceptive deafness and one with conductive deafness and a cleft palate. One child has a vocabulary of a few single words and cannot make all the speech sounds, others have almost normal language and are being helped to overcome backwardness in attainment so that they may return to normal classes. Most of the children fall between these two categories, having some naturally acquired speech and language, but not sufficient to enable them to benefit in an ordinary class. Two children are from homes where both parents are deaf. A close liaison is maintained with all parents by home visits by the teacher and meetings of the parent-teacher association.

The main aim of the teacher in the unit is to help the child to gain communication skills (speech and language) so that he may take his place in the hearing educational system. The group aid is used extensively in furthering this aim. When more audiometric information is available it is hoped to be able to analyse the auditory discrimination of each child and through speech audiometry to find the optimum level of intensity and frequency for teaching. Auditory training would then enable the child to make the best use of his residual hearing and individual hearing aids.

During the child's period in the unit he joins hearing children for physical education, handwork, assembly, dinner and play breaks, and this is extended to other lessons as the child's communication skills improve. The headmaster, staff and children are wholeheartedly with the teacher of the unit in making the children feel that they belong to the school.

The Technician-in-charge of the Hearing Aid Clinic at the General Hospital has regularly serviced the children's individual hearing aids and all the children have now been issued with Medresco transistor aids fitted with induction coils. Some of the children are emotionally disturbed, and these are under the care of an educational psychologist. A close liaison with the School for the Deaf has been maintained.

Partially Deaf Children Visited by the Peripatetic Teacher R. H. Sturman

The year 1958 has been one of good progress. Early in the year when the first teacher appointed to the Partially Deaf Unit at Eastville School resigned, a more experienced teacher of the deaf, Mrs. Rushmer, was appointed to be responsible for this class. Mrs. Stephens, who had been working only part-time in the Auditory Assessment Clinic, became a full-time worker and was able to share her time between the Clinic and the partially deaf group of spastics at Claremont School. The first issue of the new transistor aids through the National Health Service has meant that almost all our school children are relieved of their cumbersome "Medrescos" and enjoying the lightness and better quality of their "Monopack" transistor aids.

During the year, 801 visits were made by the peripatetic teacher to children dispersed in twenty-two of the City schools. Eleven new children were added to the list during the year. Of these, two were girls in Secondary schools; two boys in Secondary schools; four boys in Primary schools; two boys in Infants' schools and one boy in Nursery school.

All the children are happy and making satisfactory progress in their various classes. One girl, after successful hospital treatment, had her hearing restored, and two girls and one boy needed no further help.

Two boys reached school leaving age in July and obtained suitable employment, while a third, who left at the end of December, is not yet placed in the work of his choice.

At the commencement of the new school year in September one boy from the Partially Deaf Unit and one from a Primary school were transferred to Secondary schools, and one girl moved from Primary to Secondary school.

Excluding the children in the partially deaf class at Eastville School, and the Claremont School for Spastics the types of school attended by the children at the end of the year were as follows:—

School	*Boys*	*Girls*	*Total*
Nursery	1	—	1
Infants'	2	—	2
Primary	5	1	6
Secondary ..	5	4	9
Special (E.S.N.) ..	—	1	1
TOTALS ..	13	6	19

Educationally Sub-Normal Children

Russell Town Day Special School for Senior Boys A.L.S.

There seems at the present time a renewed hope that the day school for boys can be found more suitable premises in the near future. Their present school is in a district due for slum clearance and is on a restricted site which has little or no facility for outdoor activities. The situation has been recognised for years as being unsatisfactory for a special school. In contrast, the Authority's day schools for girls and for junior children are housed in premises in good surroundings on the outskirts of the City.

There has been a slight diminution of pressure on the numbers at the boys' school during the year. One reason is bound to be the less satisfactory nature of the premises compared with new Secondary Modern schools. Some children who ought to be admitted to the day special school continue to remain in the "D" stream classes in the ordinary schools, because of the parental reluctance for them to attend the special school. The Authority has never felt in a strong enough position to compel attendance at the day special school, because there were reasonable facilities in the ordinary school. Some Secondary Modern schools have a special class or small groups in the school and seem to be able to do very well for the higher grade E.S.N. children. The problem has yet to be faced in the large bi-lateral schools. Some medical officers and educationists feel that the E.S.N. child may not thrive well in this sort of school compared with the smaller Secondary Modern school. It still occasionally happens that boys reach the age of 14 or 15 before their true deficiencies make themselves apparent. One is constantly meeting the situation of an E.S.N. boy so failing in the ordinary school that he gets into trouble and after an appearance at the Juvenile Court is recommended for admission to a special school. This must seem to him and his parents that the special school is approaching the status of an approved school. It often takes considerable time before this impression can be countered.

The number of boys on the registers of the school at the end of the year was 137, including 3 boys from other Authorities.

House in the Garden Day Special School for E.S.N. Senior Girls A.L.S.

After a period of 22 years service as Head of the Authority's day special school for educationally sub-normal girls, Miss M. B. Kay retired from her post at the end of April, 1958. Miss Kay has always had a deep interest in her work with backward children and throughout her long period as Head of the school has shown qualities of patience, understanding, and kindliness to the girls in her charge. We have to welcome Miss I. M. Bond who was appointed to succeed Miss Kay and who has for many years been responsible for the backward pupils at Speedwell Secondary Modern Girls' School. Miss Bond has a keen interest in the social and welfare aspects of her pupils and brings a warm and active personality to the problems of the girls in her care.

The number of pupils on the registers of the school at the end of the year was 94, including 4 girls from other Authorities.

Henbury Manor Day Special School for Junior E.S.N. Children A.L.S.

One difficulty that we have experienced at this special school is the pressure on the Diagnostic Unit, where it appears that more parents now than formerly, wish their children to have a trial in such a Unit before accepting the fact of the child's ineducability. As special classes in the ordinary Junior schools take the more able E.S.N. children, the special school tends to see only the less able E.S.N. children and those with additional handicaps. This is unfortunate, but is bound to be accentuated in the future when it is expected that more special classes will be available in the ordinary schools. A side issue of this problem is the social immaturity of many of the children, which in some cases may be due to lack of parental care and early training. Enuresis and encopresis can be a major difficulty in a small school such as this, and from time to time the health visiting staff need to make special efforts. A proposal to assist the situation is to instal better bathing facilities at the school and provide a small stock of clothing which can be used in an emergency, and it is hoped to make this provision during 1959. No matter how much effort is taken with some parents and especially those who are of low mental level, after a temporary improvement, the position deteriorates and the unfortunate habits return.

The school and the staff have greatly benefited throughout the year by the attendance on one day a week of one of the school medical officers with special experience with E.S.N. children, who is prepared to examine and discuss with the staff any child who is thought to need help. The educational psychologist is not able to give so much attention to the school, but it is hoped in the future that he will be able to increase his termly visits to the school with profit to all.

The number of children on the registers of the school at the end of the year was 93, 53 boys and 40 girls.

Special Classes for E.S.N. Children in Ordinary Schools A.L.S.

The Committee has continued with the scheme for arranging special classes for E.S.N. children in the ordinary schools. Two additional classes were commenced during the year, one at Hillfields Park Junior School, and one at Greenway Secondary Boys' School. This makes a total of 11 classes, 7 in Junior schools, and 4 in Secondary schools.

An interesting experiment is taking place at Hillfields Park Junior School in an attempt to do something about the chronic lack of training for teachers of E.S.N. children. At this school arrangements have been made for two specialist teachers experienced in teaching E.S.N. children to start a unit for E.S.N. pupils who have been ascertained by the psychologist and medical officer. It is proposed that after about a year or so, during which the unit would be equipped and established under the direction of the specialist staff, it would begin to operate fully as a training unit. Assistant teachers from the special classes in other parts of the City would in turn spend a period at Hillfields Park School while one of the two specialist teachers attached to the unit would go out and take the place of the visiting teacher. This would serve a dual purpose. The teacher visiting Hillfields Park would receive training and experience of special class teaching with good facilities, and under skilled supervision, and the school from which the teacher came would have the advantage of advice from an experienced specialist who would actually teach in the school over a period. It is expected that many teachers will be able to take advantage of this specialist advice and training in the care of E.S.N. children. Additionally it is intended that this training unit will serve as a centre for shorter visits by teachers with remedial teaching problems and for periodic group meetings of those interested in this work.

If, at a later date, the proposed one year full time course for teachers of handicapped pupils is established at Redland Training College in Bristol, the Hillfields Park Centre might well act as a practising school for students on the course, and this suggestion has the warm support of the Principal of the College.

Miss M. D. Fleming, the Inspector of Schools who initiated this scheme, unfortunately died suddenly during the course of the year, and the arrangements undoubtedly received a setback because of this misfortune. The scheme was however, brought into operation in September.

Residential Special Schools A.L.S.

Croydon Hall School for Senior Girls, Felon's Oak, Watchet

The general practitioner who acted as Medical Officer to the school, Dr. Tonks of Watchet, retired from general practice during the year. Dr. Tonks has been associated with the school since its commencement at Croydon Hall and we should like to place on record his constant attention to the pupils, and his excellent relationships with the school, his interest often exceeding the bounds of duty. He has associated himself not only medically, but artistically and in other ways in the life of the school. We are fortunate in having in his place his late assistant, Dr. Lewis, who is carrying on the tradition, so well established by Dr. Tonks, of cordial relationship with the staff and pupils of the school.

At the end of the year there were 38 girls on the registers of the school (20 Bristol girls and 18 from other Authorities).

Kingsdon Manor School for Senior Boys, Somerton, Somerset

This school, which is situated about forty miles from Bristol in pleasant rural surroundings, continues to provide residential placement for educationally sub-normal senior boys, who, because of home conditions or other circumstances, require residential provision. The school has accommodation for about 60 boys, and at the end of the year there were 61 boys on the registers (49 Bristol boys and 12 from other Authorities).

In addition to the children at the Authority's residential special schools, the following children were being maintained in independent schools for E.S.N. children.

	Boys	*Girls*	*Total*
Spring Hill School, Ripon	—	1	1
Besford Court R.C. School, Worcestershire	3	—	3
Peredur Home School, East Grinstead	1	—	1
Meadows House School, Southborough	1	—	1
Clyffe House School, Dorset	2	—	2
All Souls Special School, Hillingdon, Middlesex ..	—	1	1
St. Christopher's School, Bristol (Day pupils) ..	9	2	11

Ineducable Children

During the year 77 children were reported to the Local Health Authority for the purposes of the Mental Deficiency Acts; 32 under section 57 (3), 1 under section 57 (3) and (4) and 44 for statutory supervision after leaving school under section 57 (5) of the Education Act 1944. In addition, 44 educationally sub-normal children who left school during the year were referred to the Special Schools After Care Officer for her supervision. Of these 17 had been attending special schools, and 27 had been receiving special educational treatment in ordinary schools. In addition, 3 school leavers in the care of the Children's Officer were referred for supervision by the Children's Department, and one boy on probation was referred to the Probation Officer. No supervision was thought to be necessary in the cases of 17 children (6 from special schools, and 11 from ordinary schools).

E.S.N. School Leavers 1958

	From Special Schools	*From Ordinary Schools*
Reported to the Local Health Authority under Section 57 (5) of the Education Act	38	6
Referred to After-Care Officer	17	27
Referred for supervision by Children's Officer	2	1
Referred for supervision by Probation Officer	—	1
No supervision necessary	6	11
TOTAL ..	63	46

Ineducable Children referred back to the Educational System

Two spastic children who had been in the care of the Mental Health Service were admitted to the educational system, and placed on trial at Claremont School for Spastic Children. One, a boy of 9, had been in a mental hospital since infancy. He is a severe athetoid and has been found to have a quite marked hearing loss. He has been seen by the Consultant Aural Surgeon and has been supplied with a hearing aid of the transistor type. Though it has not been possible to make any formal assessment of his ability, he showed interest in practical things, and displayed considerable drive and initiative. It was considered that he was worthy of a trial period at Claremont School and his parents agreed to accept him back into the home.

The other child is a girl of 13, who had similarly been in a mental hospital since infancy. She is also an athetoid with considerable rigidity. In this case the parents refused to have the child home, and after a period at Claremont School she was transferred to St. Rose's Independent Residential School for Physically Handicapped Children at Stroud.

The difficulty that has been experienced with these children points the moral that the utmost collaboration should exist between the local Education Authority and the hospital system when the question of the educability of any child is in doubt. A lot of difficulty could have been avoided in these cases if the parents had not rejected the children at an early age because of their handicaps. Much of this rejection was because the true qualities of the children were not noticed at the time they were first examined. It may still prove impossible for them to be educated to lead an independent life, but it is thought that the attempt should be made to educate them with this aim in view.

Maladjusted Children

A.L.S.

At the end of the year the number of children of school age placed by the Authority in residential schools or hostels for maladjusted children was 29 (22 boys and 7 girls). This compares with 22 (18 boys and 4 girls) at the end of 1957. In many cases there is still considerable difficulty in placing maladjusted children in suitable schools or hostels, and often there is a waiting time of many months before a vacancy can be found. Whilst every endeavour is made to place children as far as possible within a reasonable distance of the City, we have had to go as far afield as Lancashire, and Yorkshire to find a suitable placement for some children.

The details of the schools and hostels attended by these maladjusted children at the end of the year is as follows:—

	Boys	Girls	Total
Sutcliffe School, Winsley, Wilts.	1	—	1
Muntham House School, Horsham, Sussex	2	—	2
Red Hill School, East Sutton, Kent	1	—	1
Chaigley School, Thelwall, Nr. Warrington, Lancs. ..	3	—	3
Swalcliffe Park School, Banbury, Oxon.	1	—	1
Breckenborough School, Thirsk, Yorks.	1	—	1
Ciceley Haughton School, Wetley Rocks, Staffs. ..	1	—	1
Bourne House Hostel, Lincoln	—	2	2
The Gables Hostel, Willand, Devon	—	1	1
Halcon House Hostel, Taunton, Som.	—	1	1
Pittsburgh House Hostel, Stoke-on-Trent	—	1	1
Southfields Hostel, Ilminster, Som.	1	—	1
Walton Elm School, Sturminster Newton, Dorset ..	3	—	3
Salesian Ind. School, Longhope, Glos.	1	—	1
Whatcombe House School, Templecombe, Som. ..	2	—	2
St. Ann's Special School, London, W.10	—	1	1
St. Andrew's School, Bridgwater, Som.	2	—	2
St. Rose's Convent School, Stroud, Glos.	—	1	1
Cotswold Chine School, Box, Glos.	1	—	1
Farney Close School, Bolney, Sussex	1	—	1
Woodlands School, Fairwarp, East Sussex	1	—	1
	22	7	29

Delicate and Physically Handicapped Children

P. Tomlinson

Periton Mead Residential Open Air School

This school has continued to provide residential accommodation for delicate children. At the end of the year there were 49 pupils in residence of whom 8 were from other Local Authorities. There were thus 8 vacancies, as the school has accommodation for 32 boys and 26 girls. However, these vacancies were mostly due to parents unexpectedly removing their children rather than to any falling off in the demand for places.

It is apparent that the type of child who derives most benefit from a stay at Periton Mead is the asthmatic or bronchitic child and the improvement in the condition of these children after a period at the school is often quite remarkable. With the decline in the number of children in schools suffering from malnutrition it might be desirable to keep children with chest complaints for a longer period.

Apart from delicate children there is a number of pupils whose health has suffered from adverse social conditions at home. It appears that there will be a continuing and increasing demand for places for this type of case in the future.

South Bristol Open Air School

This school for delicate, physically handicapped and partially sighted children has continued its work during the year. Apart from education in small classes, special facilities provided include transport to and from school, the services of a full time nurse, and a part-time physiotherapist, and a weekly visit from the School Medical Officer who examines every child once a term. In addition, the Educational Psychologist visits very frequently and the Consulting Orthopaedic Surgeon attends once a term.

The chief conditions of the physically handicapped children at the school were:—

Old poliomyelitis	18
Cerebral palsy	12
Muscular dystrophy	6
Cardiac conditions	6
Hydrocephalus	3
Miscellaneous	17

At the end of the year the number of delicate children on the waiting list had fallen and it appears that the demand for places, particularly among the older age groups, is slackening. Consideration may therefore be given to increasing the number of places available for children whose health is affected by maladjustment rather than by delicacy. It may also be expected that the number of old poliomyelitis cases, the largest physically handicapped group, may fall in the future. These trends however, should not abolish the need for this form of special educational treatment, but may make it necessary to keep under review the requirements of the various groups for places.

South Bristol Open Air School C. Williams

At the end of the year there were 132 pupils on the school roll in the three main categories:—

	Boys	*Girls*	*Total*
Delicate	33	20	53
Physically handicapped	36	26	62
Partially sighted	13	4	17
	82	50	132

The above table, however, states the case too baldly; there are many pupils who qualify for two or more groups. A good example is the boy who was admitted because of below-standard vision and is, in addition, educationally sub-normal and maladjusted. His class teacher has no doubt that his emotional disturbance is his greatest defect.

Now that we are admitting rather more "problem" children, under other labels, it is very helpful that we are getting increased assistance from the psychologist. This problem is of course, a common one in most schools of this type and is acknowledged as being part of our rewarding work.

Additional staff and accommodation have made possible a finer grading of the pupils. Partially sighted children now have a second class. After a careful assessment of disadvantages and the good to be gained, all the other pupils were placed in one of six classes. An encouraging feature to the pupils should be that they will now be able to progress much as they do in a normal school.

"Setting" for reading has also helped to break down the feeling of three small schools within a school and has improved standards in this key subject. Opportunity for further improvement has been given now that the breakfast snack has been discontinued and every child has at least half an hour a day extra for schooling.

A new domestic science unit has been made at the rear of the school hall and will soon be fully operational. Here not only cookery and needlework will be taught but also, for the severely handicapped, how to cope with the mechanics of living.

During the year parties from the school visited the City Museum, the Wild Fowl Trust at Slimbridge, the Royal Agricultural Show and the City's Airport where flights in light aircraft were enjoyed. Yet another highlight of the children's year was when Miss Vintle, Gloucestershire's Woman Archery Champion, kindly gave a lecture and demonstration shoot at the school.

Dr. B. J. Boulton ceased his very welcome weekly visits during the Autumn term and Dr. P. Tomlinson has taken over the duties of medical officer to the school and now visits in his place. All pupils and staff were sorry to lose Dr. Boulton but are equally pleased to welcome Dr. Tomlinson.

Home Teaching

The two home teachers continued to work full time in this little known but very valuable service. Miss V. H. Hoare retired in July. She was well suited temperamentally for her work and matched this important quality with the necessary teaching skills. Mr. W. E. Keyes replaced her and brings to this work the experience of several years' individual teaching at Frenchay Hospital School.

Miss Watkins was assisted by Mr. Keyes when they took a small party of their severely handicapped pupils to the theatre. It is also pleasing to record that several pupils from the Home Tuition roll were able to accept invitations to South Bristol Open Air School's Christmas festivities.

At the end of the year eighteen pupils (13 boys and 5 girls) were receiving visits. The teachers' joint total of visits during the year was approximately 1,600.

During 1958 twenty-three pupils (12 boys and 11 girls) were added to the roll.

Twenty-two names were taken off the register for the following reasons:—

	Boys	*Girls*
Returned to ordinary school	4	7
Admitted to Day Open Air School	3	1
Found ineducable	1	—
Removed from district	—	1
Admitted to hospital	1	—
Admitted to Convalescent Home	1	—
Admitted to Home for Diabetics	1	—
Died	2	—
	13	9

The ability range of the pupils being taught is again very wide. The boy mentioned in last year's report as being prepared for his G.C.E. was successful in his six subjects at "O" level and has now been able to return to his ordinary school. Proof is here, I think, that during his time on the home register and when he was the responsibility of a hospital-visiting colleague, he did more than mark time educationally.

Parents, I know, would acknowledge other successes; on the slow, steady progress with reading, the key subject, but never more important than to a home-bound pupil; the value of encouraging a worth-while hobby or interest when it is possible that the child will never be employable. For some pupils in the advanced stages of a progressive disease and even considered in the light of present day medical knowledge there may seem no future. But these short lives are less bleak than they would be without the visits of the home teacher and the list of incurable diseases will surely shrink in time.

Hospital Teaching

During 1958 the two teachers on the staff of the hospital teaching service have continued to visit children in the Bristol Children's Hospital, the Bristol

Royal Infirmary and Southmead Hospital. A total of 720 children have been seen on 5,026 occasions. They came as before, from a variety of types of schools, 208 from Infant Schools, 364 from Junior Schools, 103 from Secondary Modern Schools, 43 from Grammar Schools and 2 from Technical Schools.

In all hospitals the relationships with the staff have been the happiest possible. The visits of the school teachers are anticipated by the children. Whilst naturally the atmosphere is unlike that of a classroom, the teacher is welcomed and made to feel one of the team working for the return of the children to normal health. At each hospital, work set by the teacher is supervised by the nursing staff.

All teaching still has to be done in the wards with the frequent unavoidable interruptions because of hospital routine. In many cases the children are taught individually in bed, but a certain amount of group activity is carried out within the limits imposed by the children's health and hospital conditions.

The Schools' Department of the Bristol Public Libraries has loaned books for the use of the children in hospital, and these have been greatly appreciated by the older children.

A 16 m.m. sound film projector is shared with the Open Air School and has now been used successfully in all the hospitals. At the Children's Hospital a fortnightly film show has been instituted with the co-operation of the occupational therapist, catering as far as possible for all ages and abilities. Whenever possible, suitable films are shown to add further interest to current projects.

At the Children's Hospital, the four medical wards continue to be visited as daily routine. The two surgical wards however, are visited only on request where children are likely to be patients for a long period.

At the Royal Infirmary conditions have changed during 1958. At the beginning of the year the younger children (*i.e.* under 11 years) were taught in both the children's wards, each being visited on two mornings of the week. The children's surgical ward was closed in May for re-decoration and the larger medical ward closed in October for a similar reason. There is now one small ward containing four beds or cots where children are visited on three mornings each week. The older children in the adult wards are visited individually three times a week. Early in the year the average daily number on roll here was eight children but this dropped towards the end of the year.

At Southmead Hospital the visits to the children's ward continue on three afternoons each week. Children in the adult wards are taught at the request of the ward sister or the almoners.

Of the Grammar School pupils seen, one successfully took her G.C.E. at "A" level whilst in hospital. Another child, an in-patient for nine months, continued his education at home before taking his G.C.E. and obtaining six passes at "O" level.

Epileptic Children

A.L.S.

There were only two boys in attendance at Lingfield Hospital School for Epileptic Children, Surrey, as compared with five at the end of 1957. One boy was admitted during the year, and four left the school, two because of age, and these were referred to the Mental Health Authority as needing statutory supervision under section 57 (5) of the Education Act, 1944. The other two boys were discharged because of the improvement in the control of the epileptic attacks, and they are both now attending our day special school for E.S.N. boys.

Spastic Children

Grace E. Woods

Cerebral Palsy Assessment Clinic

This clinic has continued to be held at the Children's Hospital throughout the year. About 40 new cases have been seen and most of the old cases reviewed clinically and educationally. As in the previous year, many mildly handicapped children with varying evidence of brain damage have attended.

This year has been a stimulating one for the team academically. In March, Miss Morely, Fellow of the College of Speech Therapists, paid a visit to Claremont School. Over tea the local people working with cerebral palsied children were invited to meet her and there was an interesting discussion on aphasia.

In May, Dr. Worster Drought from the Moor House School for Speech Disorders spent a day in Bristol. In the morning he lectured to an invited audience at Claremont School on congenital suprabulbar palsy and in the afternoon saw a number of problem cases of speech defect. His advice, with, on the whole, a favourable prognosis, was helpful and encouraging. One case about which his advice was asked was an adult with congenital suprabulbar palsy. This man has since been operated on at the Plastic Unit of Queen Victoria Hospital, East Grinstead, with considerable improvement in his dribbling and this stimulates the search for other cases which might benefit.

In September, Mr. Saunders (Senior Educational Psychologist) and I were invited to attend a week's International Conference on Child Neurology at Oxford. This subject is emerging as a distinct science differing fundamentally from adult neurology. In a very friendly atmosphere, we were able to meet people from many parts of Europe, who are working with cerebral palsied children and also scientists engaged in more detailed laboratory and technical research. It was an ideal opportunity to hear about all the work that is going on.

In November, a one day conference arranged by the British Council for the Welfare of Spastics was held in Bristol under the chairmanship of Professor A. V. Neale. Papers were read covering the aspects of the work in Bristol and demonstrations of physiotherapy and occupational therapy were given at the Children's Hospital. About 100 doctors from all parts of the British Isles attended and 15 of them visited Claremont School. It was another excellent chance to meet and discuss matters of mutual interest.

During the year, Dr. H. Urich, Dr. R. M. Norman's assistant in the Neuropathology Department at Frenchay Hospital obtained his M.D. degree for a thesis on the Arterial Factor in Cerebral Birth Injury. Several of the cases he described had been investigated at the Cerebral Palsy Clinic. Mr. K. Wedell of the Department of Psychology, University of Bristol obtained his Ph.D. degree for work on the visuo-spatial perception of cerebral palsied children. The majority of his cases were from the Bristol files.

Much of this interesting work has been facilitated by generous grants from the National Spastics Society.

Claremont School for Spastic Children

M. Ram

This year has seen an increase in the number of children at the school from 30 to 35. The extra children were admitted after the Easter holiday, and at the same time Mrs. Stephens took up her appointment as half-time teacher of the deaf. Because of the increased numbers, three additional physiotherapy sessions a week were also arranged.

More school journeys and expeditions have been undertaken. All the children had a day at the seaside, all but the youngest visited the film of the Russian Ballet and our older children went for the first time to a secondary school concert. Our six oldest boys spent a wonderful morning at the Docks at Avonmouth; they visited a mill manufacturing animal feeding stuffs, then went aboard a ship carrying general cargo. The crew took them on a tour of the vessel, and finally entertained them to tea and biscuits in the galley.

The Parents' Association organised a Summer Fair and a Christmas party, and have made several very generous gifts to the School including film strips, records and black-out curtains for our Hall.

Towards the end of the year it was decided that, as an experiment, a psychiatric social worker should spend one session a week with us, to deal with the problems that arise in the families of some cerebral palsied children. Contact was made with four homes where there seemed to be difficulties, and the parents seemed grateful both for the practical help, and for an opportunity of discussing the situation.

For some time it has been apparent that some of our more severely handicapped children will need the type of care that a school run for cerebral palsied children can provide, throughout their school life. The Authority has therefore made plans for the establishment of a small senior unit at Claremont, and next September should see the beginning of this extension of our work.

HEALTH EDUCATION IN SCHOOLS

A.L.S.

With the interest in health education lately stimulated by the publication of the Ministry of Education pamphlet on "Health Education" in 1956, it was thought desirable to sound the opinions of the teachers of Bristol on the subject, and after discussion, a course of lectures in health education was arranged for the Heads of primary schools by the Institute of Education of the University of Bristol. This course was held in the Autumn term of 1958, and took the form of eight weekly lectures followed by discussions which, on each occasion, occupied the whole afternoon. Some 20 Heads of schools regularly attended the course, mostly from Bristol and with visitors and others a useful small group was assembled for this pioneer venture. One dominant motive was to show the medical interest in health education, and to this end five of the eight lectures were given by medical persons. Dr. R. C. Wofinden, the Principal School Medical Officer and Medical Officer of Health for Bristol opened the course, and in his talk pointed out the acute need for health education to be taught and practised in the schools. He illustrated how the habits of the population had changed with the introduction of fresh dangers to health and gave it as a view that health education should be done both by teachers in schools and by experts introduced on special aspects. He believed that the schools had an excellent opportunity of providing a good environment and a good personal example in health matters. The biggest problem at the present time was in mental health and the detection of early signs of mental stress was very difficult. He thought it essential that children should be taught to understand how to use the health services.

Dr. Henderson, the Principal Medical Officer of the Ministry of Education gave the second talk on national health, and gave illustrations of how much healthier we had become than in former years, but pointed out that there were problems still unsolved. As disease came more and more under medical control there was a tendency for congenital and hereditary disorders to assume greater significance. Assidents still took a great toll of life each year, and other factors such as smoking are now realized also to be adverse factors in health. Mental health came in for special mention as one of our biggest problems, and the implications of a changing age structure of our population were discussed.

At the next meeting, mental health aspects of health education were dealt with by Dr. Lumsden Walker, Consultant Psychiatrist and Medical Superintendent of a local mental hospital. He pointed out that nearly half the hospital beds of the country were devoted to the care of mentally ill or mentally deficient persons, and it is estimated that about 5% of the population has spent some time in a mental hospital undergoing treatment. There was still a very great lack of understanding about mental illness, and psychiatry as a science was still objected to by many people. Foundations of good mental health were laid in infancy, and there was just as much need to recognize and accept disturbed children as there was for educationally sub-normal children. There was a need for psychiatry to go out to the people, and for the atmosphere of mystery and fear which attached to hospitals connected with mental treatment to be removed. Not only should the aggressive interfering child be referred for help, but also the withdrawn, friendless child who is just as much in need of assistance. All teachers should know the agencies for promoting good mental health.

Professor Hemingway, Professor of Physiology at the University of Leeds next dealt with the physiological aspects of growth. His theme was that growth and movement are essential properties of life. After our basic characters had been acquired from our parents, nutrition is the next most important quality for good health, and then good environment. The last 20 years had been an era of measurement, but we still knew too little about the normal development of children, and the standards to accept. There was no perfect measurement for a given age. Great ranges of qualities were compatible with perfect health. The spurts of height and weight always attracted attention, and there was some possibility that the adolescent spurt might considerably interfere with the learning process about the 11 plus age. It was pointed out that growth was not necessarily co-related with strength. The acceptance of a greater range of characteristics as being normal in children meant that children would have to be considered more as individuals in the future, and this was bound to mean a need for smaller classes.

Mr. Pullin, H.M.I. at the next meeting deputised for Mr. Heasman, H.M.I. who was receiving a decoration from the Queen on that afternoon. He talked about health education in the curriculum, remarked that he was speaking from a biological standpoint and gave very practical advice to teachers on how the biologist should use his specialised knowledge to interest children in the physiology of health. He pointed out the importance of keeping well and following the rules of healthy living. He spoke of the need for a well informed public opinion, and the appreciation and progress in adaptation to disease patterns. Mr. Pullin ranged through the school curriculum showing how health teaching could, with profit, be demonstrated in any subject. Teachers he regarded as valuable in detecting signs of minimal or sub-normal health in children. He was much envied in his method of approach, but most members thought that it would need special training to carry it out in primary schools.

Physical education in relation to health education was dealt with by Mr. Moran, Physical Education Organizer for Sheffield Education Committee. The school was recognized as a place of healthy living and training in health habits, and this was not only the prerogative of the teachers but of all ancillary staff. All modern devices should be harnessed for health propaganda. Physical education has its own special contribution to make to health, in that it was a practical subject and direct instruction could and should profitably be given with immediate effect. Children are more prepared to take advice at this time than the indirect approach made through other subjects. Children need some physiological knowledge to improve their physical performance. It was equally necessary to encourage a proper attitude and good habits in healthy living, *e.g.* correct dress and the use of adequate ventilation. Objective tests to measure physical efficiency came in for discussion and some criticism.

The final occasion was devoted to a summing-up lecture by the Senior Medical Officer of the School Health Service, who throughout acted as Chairman of the course. He was fortunate in having on this occasion as Chairman Dr. Laybourn, the Chief Inspector of Schools. Many points arose in the course of discussion which took place after each of the lectures. At first the teachers tended to complain about specific irritations in their own schools in relation to the medical service, but later on more academic discussion was possible on factors influencing health in children. A warm relationship was maintained between those attending the course, and this undoubtedly led them, almost without exception, to talk very well in the discussion group. At the conclusion of the series, the following suggestions were made about future developments:—

1. It was thought desirable in the future to offer a similar course to Assistant teachers in junior schools, and it was hoped to run this course next year, probably in the evenings with speakers of slightly less medical bias. It is thought that more participants might mean a greater number of discussion groups to cover a greater range of facets of the subject.

2. The needs of the secondary schools will have to be served. It is recognized that more is done in girls' schools than in boys'. How to assist boys to develop an interest in health as a subject is a difficult task.

3. One of the most important activities of the health education section of the office of the Medical Officer of Health is to act as an agency for the dissemination of material which could be used by the schools. There is greater need for this information to be known and for the Department to be used by the schools.

4. It was agreed that it would be useful for the P.S.M.O. to provide a termly bulletin of health on the lines of his present bulletin for medical practitioners, and it is expected that this will commence in 1959.

Some Aspects of Health Education in Schools

P. Mackintosh

In 1954, a pilot course for school leavers on "The Health and Social Services Today" was held at Portway Secondary Modern School for Girls. Later in the year, a course on the same subjects was held at the Central Clinic, and was open to teachers from Secondary Modern Schools for girls and boys. At the conclusion of the course, the Chief Inspector for Schools said that the teachers should consider introducing this scheme of study into their various schools.

Since then, the response from the boys' schools—in so far as requests for speakers, information, literature are concerned—has been disappointing. On the other hand several of the secondary modern girls' schools have arranged annual school leavers' courses and the teachers concerned have taken every advantage of the services available in the Health Department.

In the main, the courses have taken the form of a broad introduction to Public Health. The courses are spread over several weeks in each school, one or two topics being dealt with each week. The first session is given by the Health Visitor Tutor who tells the children of the general organization of the Public Health Department and the services that are available; the Tutor uses a flannelgraph to illustrate her talk. The second session is given by the School Nurse, but this time in her rôle as the Health Visitor; this talk is often illustrated with a film strip. Later, there follow talks by the Nutritionist—young girls of school leaving age are extremely conscious of their figures and are keenly interested in matters concerned with diet—the Oral Hygienist—again bearing in mind the "appearance-consciousness" of the pupils—a Public Health Inspector on environmental and food hygiene, the Deputy Supervisor of Midwives, and the Chief Ambulance Officer. In all these talks full use is made of a variety of visual aids, such as films, film strips, models, and flannelgraphs.

It is evident from the continuing requests from these schools that these talks are very much appreciated, not only by the pupils and their teachers, but other teachers in the schools who also attend if they should happen to have a free period. What makes these talks so interesting to the children are the facts that the Public Health Department officers are "new faces" in the school, and the children are hearing at first hand about public health work and problems in their own City. Many of the teachers have utilized the information which they have gained in these talks in other lessons as well, for example the art mistress in one school asked her pupils to draw some posters to illustrate some of the points made in the talks on environmental and food hygiene; the posters were beautifully drawn, and it was obvious from their content that the children had really absorbed their lesson.

We should like these courses to be extended to more schools, but the main drawback at present is shortage of staff. Most of the schools concerned want the talks in the Summer Term; if more schools could be persuaded to introduce the talks into the Autumn and Winter Terms then it would be possible to visit more of them. An alternative would be to run special courses for teachers, and in a small way this idea has been taken up by the Education Department and the Institute of Education. Last Autumn a refresher course for the Heads of junior and infants' schools was held at the Institute and details of this course appear elsewhere in this report.

HEART DISEASE AND RHEUMATISM

C. Bruce Perry

There was no change in the organisation of the Cardiac Clinic during 1958 and there has been no significant change in the incidence of acute rheumatism during the year. It is now abundantly clear that if infection with the haemolytic streptococcus is prevented in children who have had acute rheumatism, recurrences of acute rheumatism do not occur. For this reason every attempt is made to ensure that all children who have had acute rheumatism in recent years receive regular prophylactic treatment, preferably from their general practitioners. The success of this practice is perhaps reflected in the fact that only one child had a recurrence of acute rheumatism during the year and she, unfortunately, was not receiving prophylaxis, as it was thought that her original attack was so long ago that it was not necessary. There is also very strong evidence to show that if every throat infection with the haemolytic streptococcus was vigorously and efficiently treated, acute rheumatism would not occur and could in fact be prevented. This however is very difficult to achieve. Not only have doctors to be convinced of the facts of the case but parents and others must be taught to realise the potential seriousness of what appears to be a simple and trivial "sore throat". Thirty-five children were notified as suffering from acute rheumatism in 1958 and in 29 of them the diagnosis was confirmed. It is noteworthy that, of these 29, seventeen gave a clear history of a sore throat or tonsillitis one to three weeks before the onset of the rheumatic fever. Thus there is good reason to believe that if these cases had been seen and treated at the time of the sore throat, then the subsequent illness might well have been prevented. In the remaining twelve no clear cut history was obtainable when the parents were interviewed some time after the event, yet we can feel reasonably certain that the throat infection must have occurred. A great problem in the prevention of acute rheumatism thus remains and that is how to enable parents and others to recognise these throat infections which, although they may be so mild that they pass unnoticed, are yet so potentially dangerous, and to ensure that the child receives adequate and proper treatment. Nevertheless, had the cases with clearly recognised throat infections been treated last year, then it is probable that there would have been only twelve instead of twenty-nine cases of acute rheumatism. It is to this aspect of the problem that our attention must now be directed.

Summary of Cases attending Cardio-Rheumatic Clinic, 1958, including Primary, Secondary, Grammar, and Nursery Schools

	No treatment or restriction	*No treatment but restriction of games, etc.*	*Treatment and school*	*Treatment and exclude from school*	*Institutional treatment*	*Total*
New cases:						
Rheumatic heart disease	4	—	—	—	14	18
Chorea	—	—	—	—	2	2
No organic disease ..	37	—	—	—	—	37
Congenital heart disease	5	1	—	—	—	6
Various	—	—	—	—	5	5
	46	1	—	—	21	68
Re-examinations:						
Rheumatic heart disease	167	22	—	1	5	195
Chorea	2	—	—	—	1	3
No organic disease ..	367	2	1	—	—	370
Congenital heart disease	67	13	—	—	—	80
Various	3	—	—	—	—	3
	606	37	1	1	6	651

No. of individual children examined	448
No. of new cases for 1958	68
No. of re-examinations	651
Total number of attendances	719

INFECTIOUS DISEASES A.L.S.

The year 1958 was a very good year from the point of view of infectious diseases, the figures of measles and whooping cough being much lower than in 1957 and scarlet fever about the same as last year. Measles, of course, varies greatly from one year to another, and 1958 was a quiet year for this disease. The figures for children of school age and under school age during the year are as follows:—

	School age children	*Under school age children*
Measles	970	1,750
Whooping cough	109	124
Scarlet fever	263	72

Admissions of patients of school age to Ham Green Hospital during the year totalled 198, the average stay of patients being 19·8 days.

Poliomyelitis Vaccination A.L.S.

As additional supplies of poliomyelitis vaccine were made available by the Ministry of Health early in 1958, the age range of children included in the vaccination scheme was increased to include children up to 15 years of age.

An intensive campaign was undertaken through the schools to get as many children as possible vaccinated against poliomyelitis, and altogether during the year 35,741 children received a course of two injections either at the schools, or at the clinics. There was only one case of poliomyelitis amongst children of school age during the year, a paralytic case in a girl of 12 years. This compares with 29 cases in 1957.

There was some hesitation amongst parents at first, particularly concerning the choice of vaccine, many parents insisting on the British type of vaccine, but later as confidence became established the American type of vaccine became widely accepted.

Immunisation against Diphtheria A.L.S.

Arrangements for the immunisation of children against diphtheria were continued during the year as in previous years.

Though the aim is to get as many children as possible immunised against diphtheria before reaching school age, a small number of children were given a full course of injections at school and a larger number the booster injection.

It is again gratifying to be able to state that no case of diphtheria occurred amongst children of school age during the year. This is the ninth successive year in which this has been the case.

The figures of immunising injections given during the year to children of school age are as follows:—

No. given full course of immunising injections	98
No. given booster injections	1,436

MEDICAL EXAMINATION OF ENTRANTS TO THE TEACHING PROFESSION A.L.S.

In accordance with the arrangements outlined in the Ministry of Education Circular 249, the medical examination of candidates applying for entry to training colleges, and entrants to the teaching profession were carried out by the medical officers of the Local Authority.

During the year 134 candidates were examined in connection with admission to or on leaving training colleges, and 183 teachers were examined on appointments in Bristol or for some other reason. In a further 63 cases (62 teachers and 1 entrant to training college) the examination was carried out by other Authorities, and this Authority carried out medical examinations for other Authorities in the case of 16 teachers and 9 entrants to training colleges.

MEDICAL INSPECTION

A complete periodic medical inspection was made during the year of 16,944 children attending the Authority's Primary, Secondary and Special schools. The statistical tables relating to these inspections can be found at the end of the report.

Co-operation of parents

The number of parents present at periodic medical inspections during the year was as follows:—

Age groups inspected (by year of birth)	*No. examined*	*Parents present*	*Percent*
1954 (and later)	946	833	88·04
1953	860	762	88·61
1952	3,349	2,993	89·37
1951	795	685	86·16
1950	552	420	76·08
1949	1,814	1,411	77·78
1948	398	267	67·08
1947	389	285	73·26
1946	558	275	49·28
1945	1,074	433	40·32
1944	1,266	495	39·10
1943 (and earlier)	4,943	1,350	27·31
	16,944	10,209	60·25

MEDICAL INSPECTION AND TREATMENT

A.L.S.

Early in 1958 the Committee asked that discussions should be held with representatives of the Regional Hospital Board, and other bodies to explore the possibility of the transfer to the National Health Service of some part of the expenditure on medical and dental inspection and treatment now carried out by the School Health Service. Meetings were therefore arranged with representatives of the Regional Hospital Board, United Bristol Hospitals and the local medical and dental committees to discuss this matter. The various aspects of the work of the School Health Service were discussed at these meetings, including the consultant and specialist service, other specialized services held in the Authority's clinics, the dental service, the minor ailment service, and the child guidance service. It was finally decided that no change should be made for the present in the consultant and specialist services, the child guidance service, or the minor ailment clinics. In connection with the dental service, however, it was decided, in view of the shortage of dental staff, to explain more fully to the parents the facilities that were available, without charge, for the dental treatment of school children by private dental practitioners.

In the report for 1956, proposals were described for holding four periodic medical inspections during the school life of each child. These inspections were to be held at 5 years of age on entry to school, and at 8, 12, and 14 years of age. The Committee decided early in 1958 to revert to the previous system of three periodic medical inspections instead of four. This year therefore, the system of medical inspections at school has been as follows:—

> The first inspection as soon as possible after the entry of the child to school at the age of 5.
>
> The second inspection at the age of 9, and the third inspection at the age of 14.

For those pupils in grammar schools, and those taking the grammar course in bi-lateral schools who will be staying on at school after the age of 15, a further medical inspection will be held in the last year of school at the age of 16.

Infestation A.L.S.

The number of individual children found to be infested with vermin or nits during the year was 1,584. This gives a percentage figure of 2·4 per cent of the school population. The figures relating to 1958 and the five preceding years are given below:—

	No.	*School population*	*per cent*
1953	2,990	62,182	4·8
1954	2,773	63,573	4·4
1955	2,347	65,177	3·6
1956	2,133	65,979	3·2
1957	1,841	66,439	2·8
1958	1,584	66,555	2·4

It will be seen that the percentage of individual children found to be infested is slightly lower each year and the figure of 2·4 per cent in 1958 is the lowest so far achieved. There are however, still some schools in the City where infestation is a problem, and towards the end of the year the Head of one of these schools, through the Managers, asked for some special effort to be made to deal with the problem in the school. An intensive campaign was therefore, undertaken in this school, and in two other schools in the area where the problem was also causing concern. All the children in these schools were inspected by the nursing staff and any child with vermin was excluded from school and the home visited. The mothers were interviewed and where necessary supplied with a special comb and medicated shampoo and instructions were given on the method of treating the child and any other members of the family. The children concerned were re-examined after an interval of four days, and treatment was given where necessary, the child being again examined a week later. The children with nits were dealt with in the usual way by a letter to the parent with subsequent re-examination in school and treatment when required. Altogether 2,874 children were examined, of whom 86 were found with vermin and 233 with nits. It should be mentioned here that all children who were affected, however slightly, were included in the figures given and were dealt with. Visits were paid to the homes by the nursing staff in 187 cases. The nurses reported that with very few exceptions the parents had made a real effort to cleanse the children, though in some cases the children had to be kept under observation and re-examined two or three times before a satisfactory result was achieved.

Though this campaign has resulted in a much higher standard of cleanliness being achieved in the schools concerned, it is likely that constant supervision will be required to maintain this standard, and arrangements are being made for the nursing staff to carry out a complete examination of the children especially when the schools re-open after holidays.

One of the problems in dealing with this condition, is the difficulty of examining and treating older members of the family who may be infested and in consequence may re-infest the children. The health visitor relies generally on her good relationship with the family which has been established over a period of time, and it is on the basis of this goodwill that she is able effectively to secure the co-operation of the parents in dealing with the problem on a family basis including both children and adults, but it would be helpful if local health authorities had greater powers to deal with the examination and treatment of adult members of a family when occasion arises.

MEDICAL RECORDS

A.L.S.

There is thought to be a need for the medical history of a pre-school age child to be summarized by the health visitor from the infant welfare records just before the child is due to commence attendance at school. Partly this is necessary because the health visitor who supervises the health of the child from infant age up to five years may not be the same health visitor who will carry out this work when the child commences attendance at school. Also it is desirable that information about the diseases experienced by the child and other qualities, *e.g.* parental care, etc., should be recorded for the benefit of the medical and nursing staff at the school. A special visit is therefore arranged by the health visitor, just before the child is due to enter school, at which these points could be summarized and special advice given to the parent about the protection of the child by booster inoculations or by primary immunisation, if this has not already been done. This summary has been found to be a valuable method of transferring medical information about the child for the benefit of the doctor and nurse at the school. The form of report, which after a trial has been found to be most useful, gives details of the birth history, family history, parental care, the infectious diseases experienced by the child, and information about any prophylaxis measures which have been given. The health visitor is also asked to record brief details of any medical conditions of importance, *e.g.* fits, ear trouble, recurrent bronchitis, asthma, operations or accidents, and a note of any hospital admissions. Her assessment of the general physical conditions of the child is also recorded, and any other remarks which would be helpful to the medical or nursing staff at the school.

A further point in favour of this summary is that this single page document saves much space in the files which was formerly occupied by the rather bulky welfare record card, and brings out the important features of the child's health which might otherwise be overlooked.

A few Heads of schools have welcomed the idea that the health visitor should be present on the day when the infants are first received at the beginning of the new term. There are obvious benefits to all from this procedure where the district health visitor knows the infants who are about to enter school. The infants recognize and welcome the familiar face of the health visitor and her status in the school with the parents is therefore enhanced. The health visitor may well be called upon to explain to the Head some features of the child's previous medical history, and those Heads who have experience of this arrangement welcome the innovation.

MILK AND MEALS IN SCHOOLS

T. B. J. Hetherington

In October, 1958, 53,838 children were taking milk under the milk-in-schools scheme, a percentage of 87·16 of the number in attendance compared with 83·59 per cent in 1957. The total number of children receiving school dinners amounted to 23,762, of these 2,234 were receiving free dinners. The percentage of children taking dinners increased from 37·19 per cent in 1957 to 38·55 per cent in 1958.

During the year kitchens were opened in Brentry Primary, Gay Elms Junior Mixed and Gay Elms Infants', St. Bernadette R.C. Secondary, West Town Lane Junior Mixed and Withywood Secondary Schools. A further kitchen was opened in House-Block "B" of the Henbury Secondary School and a new kitchen was built at the existing Southville Primary School.

Further hygiene talks, films and demonstrations were included in meetings attended by School Meals staff. Dr. Smallwood gave talks on hygiene and first-aid and Mr. Whone, a senior district public health inspector, covered all aspects of hygiene at meetings held in each area. These talks have made a further impression on all who attended and it is hoped to extend the meetings to include a series each year.

During this year courses were started at the Training Kitchen at Rose Green under the direction of Miss P. Wheaton. The courses cover the practice and theory of all aspects of school meals work and emphasis is given to personal, kitchen and food hygiene. Talks are included on first-aid, prevention of accidents, nutrition, food analysis, etc.

Provision of protective clothing has been agreed for drivers of school meals vans and further instructions have been issued regarding the cleanliness of the vans, care of containers, and general hygiene.

MILK, FOOD AND HYGIENE INSPECTIONS

F. J. Redstone

Public health inspectors visit kitchens and canteens of the Schools Meals Service for a number of purposes but in general no detailed inspection of these premises has been carried out.

Whilst realising that the School Meals Service is supervised by the Organizer of School Meals, the Medical Officer of Health considered that since school kitchens and canteens are food premises within the terms of the Food Hygiene Regulations, 1955, the Public Health Department should carry out its statutory obligation to inspect all school food preparing premises to assess their degree of compliance with the Regulations. A meeting attended by the Chief Education Officer, Senior School Medical Officer, Schools Meals Organizer, and the Chief Public Health Inspector, was called by the Medical Officer of Health to discuss the inspection of school kitchens, when it was decided that as a first move a survey representing a cross section of school kitchens and canteens should be made. This initial survey was completed during the year.

Kitchens and canteens are housed in a variety of buildings, *e.g.* integral part of school buildings, prefabricated buildings and hired premises. The structural condition, ventilation and lighting of kitchens varies considerably but, as a general comment, it must be said that whether the kitchen staff are working in near ideal conditions or in old unsuitable premises, their diligence, standard of hygiene and maintenance of kitchens and equipment is of a very good order.

The Chief Public Health Inspector's section assisted the Schools Meals Organizer, in an advisory capacity, on training courses for school meals staff, and gave lecture/demonstrations to supervisors, and kitchen and canteen staffs on seven occasions.

Now that the preliminary survey has been completed it is hoped to embark on a systematic inspection of all kitchens and canteens, and to present individual reports to the Chief Education Officer as they are prepared. In this way the School Meals Service will have the Public Health Department's opinion on each premises and recommended improvements can be carried out on a progressive and priority basis.

In accordance with established practice, 517 samples of various foods were taken for analysis from 11 school kitchen stores. All were satisfactory with the exception of a few cases of mite infestation, and in these cases the affected articles were distroyed.

All the 145 samples taken of pasteurised milk supplied to schools passed the tests for pasteurisation and for keeping quality. A few complaints were received about school milk. One alleged poor quality milk, and another referred to peculiar flavour, but neither complaint was substantiated in the laboratory. A justifiable complaint was made by one Head Teacher regarding a number of chipped bottles being used for school milk. Investigation suggested careless handling during transport and the dairy company undertook remedial measures.

A severe outbreak of dysentery occurred one weekend during September amongst scholars and staff at two schools. The kitchen where meals are prepared for both schools is modern with up-to-date equipment and responsible staff. None of the food consumed at the last school meal before the outbreak was available except blancmange powder and flour as ingredients. Samples of each submitted to the laboratory proved negative for food poisoning and dysentery.

Faecal samples from five of the kitchen staff, and several teachers and scholars at one school were positive for shigella sonnei dysentery organisms. One part-time meal server, and several teachers and scholars at the other school, returned similar results. By agreement between the School Medical Officer and the School Meals Organizer, the kitchen was closed for several weeks until the staff were cleared. Several likely theories as to the cause of this outbreak remain unproven.

An outbreak of sickness amongst scholars at another school occurred during a later week-end. No kitchens were involved and faeces specimens from absentees were all negative for food poisoning and dysentery. Dysentery continued to occur for several months in the Spring in families living in the Hartcliffe, Withywood and Knowle West areas. Children from a number of schools and nurseries were amongst the victims but no common factor could be discovered.

NURSERY SCHOOLS AND CLASSES

At the end of the year there were 14 nursery schools maintained by the Authority accommodating 1,045 children and 18 nursery classes in infant schools with accommodation for 594 children.

The children in these nursery schools and classes are kept under regular medical supervision by a doctor and nurse, and minor ailment treatment is usually given on the premises. The facilities of the School Health Service for dental inspection and treatment and consultant advice are available to children at nursery schools in the same way as for children of school age.

Medical Treatment of the Pre-School Child

The statistics of medical treatment given to children under school age during 1958 are as follows:—

Eye diseases	47
Ear diseases	23
Skin diseases	136
Minor ailments	16
Aural Surgeons' cases	81
Eye Specialists' cases	165
Heart Specialist's cases	7
Orthopaedic Specialists' cases	68
Chiropody Clinic cases	4
Skin Consultants' cases	26
Enuretic Clinic cases	12
T.B. Contact cases	98
Children's Chest Clinic	17
Wart Clinic	1
Various	301
TOTAL	1,002

NUTRITION CLINIC

Margaret Chapman

During 1958 one hundred children made primary visits to the Nutrition Clinic, most of whom were referred because of overweight. In all, there were 645 attendances.

To encourage a wider choice of food and to improve feeding-habits, talks and demonstrations have been given to school-leavers and at Parent-Teacher meetings.

On leaving school, many children assume the responsibility of choosing their own food for the first time, and it is thought that some guidance concerning choice of meals might be helpful in preventing them from becoming the easy victims of the "bun and bottle of pop" habit, which appeals to their palate and suits their pocket.

The link up between diet and physical well-being is used as a theme for guiding food selection and emphasis is laid on the important contribution which diet makes towards attaining attractive physical attributes such as good physique and posture, healthy skin and hair, well-formed teeth and nails and general vitality. Questions asked, following these talks indicate the importance of such matters to teenagers and it is hoped that this is an effective way of increasing nutritional knowledge and, at the same time, of raising nutritional standards in another section of the community.

Direct contact with parents and teachers provides an opportunity for drawing attention to the results of dietary errors in present day children, such as obesity and dental caries, both attributed to excessive carbohydrate consumption, and for discussing feeding problems and food values in general.

Growing concern is felt over the number of children who come to school without having had any breakfast and over the sale of biscuits, etc., by the schools themselves. While it is realised that some children would still have biscuits obtained elsewhere, it is felt that easy availability through the school shop increases consumption of carbohydrate, encourages children to forego breakfast and decreases the drinking of milk at school because frequently there is not time to have both. If the habit of eating something at mid-morning is too firmly established to alter, it is suggested that the sale of apples should not present insuperable difficulties and would help to satisfy the requirements of the child, the dietitian, and the dentist without harming school funds.

ORTHOPAEDIC AND POSTURAL DEFECTS

A.L.S.

Mr. Pridie and Mr. Jones, the Orthopaedic Surgeons of the Regional Hospital Board continued to attend the Orthopaedic Inspection Clinics held on one session a week each, at the Central Health Clinic during the year. The total number of children of school age seen at this Clinic continues to decline though the number of children under school age shows a slight increase over that of last year. This trend towards seeing children with orthopaedic disabilities at as early an age as possible is obviously the right one, as the earlier such disabilities can be brought to the attention of the orthopaedic surgeon, the better the prospect of avoiding any permanent disability. Mr. Lucas, the Orthopaedic Surgeon, continued to attend at South Bristol Open Air School, and the Claremont School for Spastic Children once a term, to give advice on the children there, and his visits are greatly appreciated.

The details of the children seen at the Clinic during the year are as follows:—

	Age 5 yrs and over	*Age under 5 yrs*
Paralysis (*a*) Flaccid	54	1
(*b*) Spastic	19	—
Tuberculosis of bones and joints	4	—
Congenital abnormalities of bones and joints	37	6
Amputations	1	—
Genu valgum	24	18
Various (Flat foot, spinal curvature, etc.) ..	421	43
	560	68

PHYSICAL EDUCATION

J. McA. Milne

The Secondary School building programme continues to provide additional facilities for physical education in the City and five new gymnasia were ready for use this year. As far as men are concerned the recruiting of qualified physical education staff for the new schools where there are good facilities has presented no problems, but there is still difficulty in appointing female staff to the new schools and male staff to the older secondary schools with poorer accommodation. It is a situation which will have to be faced in the near future because there is a shortage of qualified physical education teachers and those leaving colleges will apply for appointment to schools where conditions are good.

A large number of teachers attended courses held during the year. The activities covered included National Dancing, Folk Dancing, Swimming, Life Saving, Netball, Football, Cricket, Basket Ball, Primary Physical Education and Secondary Physical Education (women).

The Institute of Education arranged a Health Course for Primary School Head Teachers.

During the Easter holiday the Physical Education Association of Great Britain and Northern Ireland held a course at Henbury Secondary School which was attended by many teachers from various parts of the country. Two classes from a Bristol Primary School were used for demonstration purposes.

School visits have been arranged for teachers and children. One interesting visit was when two classes of girls from the House in the Garden School visited Elmfield School for the Deaf to see physical education and demonstrated some of their dances. Ten primary school teachers visited a junior school in Lancashire and a secondary boys' school in Manchester. The work seen was very interesting and provided much discussion.

Although it has not been a very successful hockey season, a tournament was arranged and 13 schools took part.

Two netball tournaments were organised for City schools and another for schools affiliated to the All England Netball Association.

Rounders tournaments were organised and very much enjoyed by those who participated.

During the summer and autumn terms the adventure playground was staffed, as an experiment, by a group of teachers, each taking one or more evenings per week. This has not proved entirely satisfactory as there is a lack of continuity with frequent change of personnel, and the children suffer from lack of security. It is proposed, however, to give this method of staffing another trial next year.

An inaugural meeting of a Bristol and District Keep Fit Association, followed by an open class, was held in May. This was well attended. A committee was formed and future date fixtures made.

Interest in the Duke of Edinburgh's Award Scheme has continued and a number of boys were successful in gaining the Silver Award last Summer. Many of these are now proceeding towards the Gold Award which should be taken in 1959. The scheme is still in the pilot stage and it is anticipated that when nationally released it will attract a number of boys in secondary schools.

The interest in school camping has grown naturally from the development of the wider aspect of physical education with this emphasis on outdoor pursuits. Parties enjoyed a period under canvas at Orcombe Point, Exmouth, and Carey Camp, Wareham, together with a variety of other sites which schools had chosen for themselves. It is possible that in the very near future a permanent camp site will be available within a short distance of the City, and this should allow more children to have experience of living in the countryside.

The voluntary organisations continued to develop and have excelled in most of their athletic and sporting activities winning many national and regional honours in Swimming, Boxing, Association Football, Rugby Football and Basketball.

PSYCHOLOGICAL SERVICE

R. V. Saunders

Dr. Woods has reported elsewhere on the proceedings of the National Spastic Society's International Study Group at Oxford in September, 1958.

The British Council for the Welfare of Spastics also held a one day Conference in Bristol in November 1958.

A point which has emerged from the discussion at both conferences is that we ought perhaps to look at the implications of brain damage quite as much from the learning angle as from the angle of movement handicaps or other physical conditions which may result from the damage. In other words we should, for example, regard cerebral palsied children as "brain damaged children with a movement defect".

This point may seem at first glance to be rather an academic one, but it may be that a willingness to define the handicap in such terms can involve a re-orientation of our educational outlook so far as cerebral palsied, and possibly one or two other types of brain injured children, are concerned. It would probably be fair to say that up to the present the chief preoccupation with cerebral palsied children has been with their movement handicap. In recent years, however, doctors, teachers and psychologists, who work with these children have become increasingly aware that they also have learning difficulties of a kind found only occasionally in the normal school population. What is more, these difficulties appear to be associated with the child's awareness of himself in space, and with his ability to organise what his senses tell him about his physical environment. Such difficulties seem to be characteristic of brain-damaged individuals—hence the suggestion that our approach to the educational needs of these children would be assisted if it were accepted that their main handicap is cerebral damage, with the various implications that this might bring.

This whole field has been little explored by psychologists and educationists, and it is important that they should start from the right point in investigating it.

One of the interesting features of dealing with these learning problems in cerebral damaged children is that it emphasizes most strikingly the way in which the learning of the normal individual is dominated by the senses of sight and hearing, to the extent that we tend to overlook the educational value of touch and the kinaesthetic sense. Remedial teachers have often some general appreciation of the value of these, but there is room for much improvement in our knowledge of specialised ways of using them to help children who are spatially disorientated or have sensory losses which deprive them of some of the information they would normally obtain from their environment.

SPEECH CLINICS

Kathleen Coleman
Helen M. Streat
Ann Johnson

The outstanding factor in the work of the speech clinics this year is the progress made with stammerers. Increasingly we find that younger children of seven to eight years of age and those who for some reason cannot practise at home, are making appreciable progress and obviously benefiting from work done at the clinic. That it is possible for them to do this when the only relaxation they receive is at the clinic, suggests that our particular form of relaxation is proving satisfactory. We are considering whether the large number of cases of stammering may not, to some extent, link up with the general environment of speed in which we live. Children generally are more mature and this, linked with the increasing pace of life, may well in some children give rise to feelings of inadequacy and for those with this tendency to stammer. In so many cases children find that the general slowing down is what has helped them and although a psychological factor is always present, this has often developed as a result of the speech inadequacy and in most cases adjusts as control in speech is acquired and increased confidence develops.

There have been several changes in staff and organisation.

As a full time therapist could not be found for Marlborough House, it was arranged that a third speech therapist be appointed and the work divided. We have been sorry to lose Miss Morris, but glad to welcome Miss Streat in her place after a few months interval. It was disappointing to lose Miss Kane after three months, but were fortunate in having Miss Johnson join us.

A well attended session has been started at the Mary Hennessy Clinic and work has again commenced at Henbury Manor Special School after a break of several months. Clinics have continued at Portway, Southmead and Granby House, but there has necessarily been a break in the sessions at Knowle and Connaught Road Junior Schools.

There has been an increasing tendency for schools to confuse speech therapy with speech training, which is the work of the teacher of speech. We are receiving numbers of requests to visit schools and see children many of whom are not suitable for speech therapy for various reasons. Many of these would benefit from speech training. The work of the speech therapist lies more in the field of medicine than of education and it is for the teacher of speech to deal with the educational aspect.

It is generally felt that the "look and say" method of learning to read is responsible for much speech immaturity. So many children do not understand how to combine sounds and syllables to make words. They get an impression of a word as they hear it, which is frequently incorrect. By an understanding of combining sounds and building words, many of these incorrect impressions would be corrected as the child progressed.

We are always indebted to the schools for their interest and co-operation which so greatly helps us. We would like to improve the liaison between the schools and ourselves and with this in mind, are hoping to be able to arrange one or more "open days" during a school holiday, when anyone interested may visit the clinic and find the therapists free to discuss all or any problems or matters of interest.

Work with the less intelligent children continues to be a matter of importance. Although many of these children are unable to benefit from speech therapy several of the more handicapped have shown good results, but this type of work does make a tremendous demand on the time of a very limited staff. One child who had no speech pattern at all and would not attempt to speak, was sent for a report. It took the greater part of every morning for two weeks before an estimate of his possibilities was possible, but during that time quite a passable pattern of speech had begun to develop. Another drawback of this type of work is the desirability of almost daily treatment at the clinic in the initial stages. It is hoped to be able to expand and develop this side of the work in the coming year.

A summary of one or two cases may be of interest:

Robert, a mature eight year old came with a severe bloc stammer and every attempt to speak was accompanied by severe blocking of speech. Apparently unco-operative and rather aggressive he could not relax himself but liked to be relaxed when he came to clinic. Daily treatment was agreed upon and after three weeks so much improvement was noticeable that a letter was received from the Headmaster remarking on this. Treatment was continued twice weekly and at the end of three months we had a happy confident child, taking a pride and pleasure in his improvement.

Roger, another eight year old, prepared to speak by tensing the body, grimacing and using arm and leg movements in his effort to force his speech. Being unable to acquire any degree of relaxation on his own, he attended daily for two weeks. At the end of that time he had ceased to grimace, or make any limb movement and was beginning to be able consciously to use smooth fluent speech. The school reported a great improvement and apparently encouraged by his success this eight year old went on slowly but surely to eliminate all tension from his speech.

Philip, aged ten years, a pale, tense faced child was completely unco-operative and offered a defence of "I don't understand what you mean" to everything. At school he alternated this with bursting into tears. Daily treatment not being possible he attended three times weekly for four weeks. As the tension gradually relaxed he grew more co-operative and worked well to relax his tension. He no longer stammers and his emotional difficulties have adjusted considerably. His school work has improved and he is a much more normal lad.

In closing we would draw attention to the need for a greater understanding of the nature of our work, especially among the medical world. There is need for a closer co-operation in this direction and an even greater need for the opportunity for discussion and advice with the more difficult cases. It is pleasing to note that arrangements have again been made for one of the medical officers to attend the clinic on one morning each month to discuss problems and to help with any difficulties.

No. of new cases	164
No. of cases discharged	136
Total No. of attendances	2,592
Total No. of children treated	289
No. of children in attendance 1st January, 1958	88
No. of children in attendance 31st December, 1958	169

Speech Therapy at Claremont School for Spastic Children

Beryl Bolwell

There has been a slight increase in the number of children receiving speech therapy at Claremont School during the past year. This is due to the fact that in April the total accommodation of the school was raised from 30 to 35, when a half time teacher of the deaf was appointed.

It has been found that approximately one half of the children need speech therapy, the majority three times weekly, some twice weekly, and where necessary and generally for short periods, concentrated treatment daily.

At the end of the Easter Term, Miss Sturman, the peripatetic teacher of the deaf, who had helped us considerably in the instigation of training for the partially deaf athetoids, discontinued her work at Claremont on the appointment of Mrs. Stephens for five sessions per week. The need for specialised training of this type has been borne out by the fact that audiometric tests have shown that two more of our children, both athetoids with histories of neonatal jaundice, have high frequency hearing losses. All these children continue to have speech therapy, concentrating on the treatment of the motor defect affecting all aspects of speech production, and on the development of language. The language development of the cerebral palsied tends to lag behind that of normal children even where the articulation defect is not a serious problem, because their general experience of life is limited.

New patients treated this year include one particularly interesting case. A boy, aged 5 years, a spastic quadriplegia, has a spastic dysarthria, and also some degree of executive language defect, or developmental dysphasia. His understanding of spoken language and hearing, is normal. He is very nervous and sensitive, and upon entry to the school, made much use of gesture to express his needs. He is now gradually gaining confidence in using his limited vocabulary and not relying on gesture to such an extent. This is the third child admitted to the school with a similar language difficulty, and all have been spastics.

However, the majority of patients are athetoids, and this is only to be expected when it is remembered that athetosis results in general motor incoordination affecting all function of which speech is but a part.

No. of children under treatment 1st January, 1958	12
No. new cases during the year	8
No. discharged	3
No. of children under treatment 31st December, 1958	17
Total number of children treated	20
Total number of treatments	1,156

SUNLIGHT CLINIC

A.L.S.

During the year 64 children of school age, and 5 children from nursery schools attended the Artificial Sunlight Clinic. The conditions treated were mostly general debility, bronchitis and other chest troubles. The number completing the course of treatment during the year was 42 children of school age and 5 from nursery schools, and there were 12 children, 10 of school age and 2 from nursery schools, under treatment at the end of the year.

TUBERCULOSIS

Children's Contact Clinic

Mary D. Gibson
D. J. Sheerboom

The work of the Children's T.B. Contact Clinic has continued during the year on the same lines as in previous years.

The policy of giving chemotherapy at home to all children with active primary tuberculosis, started during 1957, has been continued.

During 1958, 17 such children received treatment, the necessary medication being provided by their family doctors through the National Health Service.

The treatment given has been izoniazid alone in most cases but some children have needed izoniazid plus P.A.S.

No child seen as a contact during 1958 required admission to sanatorium.

The total number of attendances during 1958 was 1,036, the majority of which were made by children who were still having regular check-ups for old primary infections.

The number of children discharged from the Clinic during the year as being no longer in need of further follow up was 118.

B.C.G. Vaccination of 13 Year Old School Children

Mary D. Gibson
P. Tomlinson

During 1958, the fifth year of the Ministry's scheme for offering B.C.G. vaccination to 13 year old school children in Bristol, some 5,462 children were eligible.

The parents of 4,040 (73·9 per cent) of these children wished to have their children protected with B.C.G. This is an increase over the number accepting in the previous year.

The acceptance rate, however, still varies enormously in different schools—from 96·3 per cent at an independent Grammar School to 17·2 per cent at a day Special School for E.S.N. boys. In contrast to this latter school at the corresponding special school for girls the acceptance rate was 83·3 per cent.

The percentage of positive reactors to the initial skin test, *i.e.* children who had already suffered a primary infection with tuberculosis before the age of 13, has fallen steadily since 1954, the year in which this scheme started. The figures for this are:—

1954	17·2 per cent
1955	16·1 ,, ,,
1956	13·6 ,, ,,
1957	10·8 ,, ,,
1958	9·01 ,, ,,

This age group seems to be remarkably free from possible complications of B.C.G. vaccination, *i.e.* there have been no instances of axillary or cervical adenitis in this group during 1958.

Five children were sent to us by parents or family doctors because of large local reactions to B.C.G. persisting two or more months after vaccination.

In all five cases, the B.C.G. site dried and healed over rapidly on cessation of all treatment other than a clean dry dressing daily of a type which permitted air to reach the vaccination site.

One boy developed a secondary infection of the skin for about 3″ round the B.C.G. site. Clinically, this looked like a typical impetigo and the organism concerned was a penicillin sensitive Staph. Aureus. This responded rapidly to treatment with penicillin ointment, the B.C.G. vaccination ran a normal course and was unaffected by the overlying and surrounding impetigo.

Mass Radiography

F. B. Richards

The arrangements for the mass radiography of children due to leave school were continued during the year, on the same lines as in previous years, and 4,124 children were X-rayed through the Mass Radiography Service. The percentage of active cases of tuberculosis found during this period is again extremely low. The details of the cases are given below:—

	Boys	*Girls*	*Total*
Miniature films	2,086	2,038	4,124
Recalled for large films	20	25	45
Normal large films	12	21	33
Significant cases	8	4	12

Analysis of Significant Cases

Of the significant cases, 8 were found on clinical examination to have non-tuberculous conditions as set out below:—

Condition	*Boys*	*Girls*	*Total*
Abnormality of the diaphragm ..	—	1	1
Bronchiectasis	1	—	1
Congenital cardiac lesion	1	—	1
Mediastinal glandular enlargement ..	1	—	1
Old empyema	—	1	1
Pneumonitis	3	—	3

The remaining cases were found to have varying degrees of tuberculous conditions as follows:—

	Boys	*Girls*	*Total*
Active tuberculosis	—	1	1
Inactive	2	1	3
Under observation	—	—	—

X-ray of Teachers

A.L.S.

The arrangements for the routine X-ray of teachers were continued during the year, and 731 teachers were X-rayed out of 1,067 who were given appointments. Of these 18 teachers were recalled to have large films taken. The results of these large films showed no active lesion of the lung in 9 cases. In the other 9 cases the results were as follows:—In one case clinical assessment was recommended; two cases showed old disease, but no active disease present now; 3 cases showed evidence of collapse or recent infection; two cases showed old fibrotic thickening, and one case of emphysematous bulla with no evidence of active disease. Two other teachers who had been off duty because of tuberculosis had made good recoveries during the year and were able to return to work, and 18 teachers were attending the Chest Clinic during the year for observation.

It is disappointing that we still have a considerable proportion of absentees when appointments are made for periodic X-ray. Endeavours are made to arrange appointments convenient to the teachers, and to the school, and only one teacher at a time is asked to attend from any one school. Though this arrangement is obviously a reasonable one, in a large school it does have the effect that there is one teacher away on one period each week for a number of weeks. Although most teachers accept this service very willingly there are still some who withhold their consent to X-rays because of the belief that there is undue exposure to radiation hazards. In default of any positive guidance from Central Government sources, the opinion expressed in the British Medical Journal of November 1957 has been circulated to teachers, though we are sorry to say, without much effect in reducing the rate of absenteeism.

YOUTH EMPLOYMENT SERVICE

B. M. Dyer

The Employment of Handicapped Children

As in previous years, the youth employment service received detailed reports on handicapped pupils due to leave the City's special schools, and ordinary schools. These children were seen, usually with their parents, and were advised about their choice of employment. In the majority of cases the actual job was found by the youth employment officer after a special appeal to an employer. In the case of children at the residential special schools, these were seen during the holiday preceeding their final term. In spite of the worsening employment situation there has not been, throughout the year, a great deal of unemployment amongst physically handicapped young people. When the parents have co-operated it has nearly always been possible to find a suitable job for the physically disabled boy or girl, and employers are generally most sympathetic to their special needs. Two boys who were unable to find work for some weeks after leaving school attended the Industrial Rehabilitation Unit and both subsequently obtained satisfactory jobs.

The worsening employment situation has, inevitably, caused a longer delay in obtaining work for the mentally handicapped school leavers. Nevertheless, employment has been found for the majority, but this frequently proves to be of short duration. An effort has been made to encourage more parents to attend the school interviews and despite the very considerable distances which many have to travel, this has proved successful. Visits to firms where employers are sympathetic to this type of child have also been arranged, in order to give both the leaver and the school in question a better notion of what might be expected of a prospective employee.

After Care of Handicapped Children

L. A. Tavener

During 1958, there has been an increase in the number of children placed under voluntary supervision, bringing the Special Schools After Care Officer's case-load to 213. This work is now being divided between the Special Schools After Care Officer who has 183 cases, and one of the women School Welfare Officers who has 30 cases.

The number of children referred to the Special Schools After Care Officer during the year continues to be greater than those ceasing after care, and this pattern seems likely to continue for some time. The reason for this trend is that although more children have been referred to the Mental Health Authority, a larger number have left school, and have been referred for voluntary supervision.

Reports have been prepared for the end of term conference on 109 E.S.N. children leaving Special Schools and ordinary schools from which 44 children were placed under voluntary supervision.

It has not even been possible to visit all the children on their admission to Special Schools, but some further progress has been made in carrying out visits to school leavers during their last term at school.

The Special Schools After Care Officer continues to experience increasing difficulty on account of rising unemployment among those under her care, and it has become even more necessary to pay frequent visits to the homes in order to maintain the maximum stability possible.

Relationships with other services have been maintained and further development undertaken with the work at the James Wykeham (Filwood) Club.

A point of interest is that although the number of leavers placed under voluntary supervision is rising, the number referred to the Mental Health Authority for supervision under Section 57 (5) of the Education Act is also increasing. This seems to be a reflection of the more complete ascertainment of the E.S.N. children in the post-war years, and the increased numbers of children who are now being provided with special educational treatment in special schools or in special classes in ordinary schools.

Owing to the case-load it has not been practicable to visit the homes of leavers from special classes in the ordinary schools, and this work has now been transferred to the Health Visitors.

BRISTOL EDUCATION COMMITTEE

Chairman: Alderman R. St. John Reade, O.B.E., M.A.

Vice-Chairman: Alderman Mrs. F. M. Brown

Special Services Committee

Chairman: Alderman Mrs. F. M. Brown

Chief Education Officer

G. H. Sylvester, M.A.

Principal School Medical Officer and Medical Officer of Health

R. C. Wofinden, M.D., B.S., D.P.H., D.P.A.

Deputy Principal School Medical Officer and Deputy Medical Officer of Health

P. G. Roads, M.D., D.P.H.

Senior Medical Officer, School Health Service

A. L. Smallwood, M.D., D.C.H., D.P.H.

City and County of Bristol

Population (estimated mid-1958)	438,000
Schools:—	
Number of School Departments	224
Average Number on Registers	66,555
Average Attendance	60,143

STAFF

Principal School Medical Officer and Medical Officer of Health

R. C. WOFINDEN, M.D., D.P.H., D.P.A.

Deputy Principal School Medical Officer and Deputy Medical Officer of Health

P. G. ROADS, M.D., D.P.H.

Senior Medical Officer, School Health Service

A. L. SMALLWOOD, M.D., D.C.H., D.P.H.

School Medical Officers

(Joint Appointments with the Local Health Authority)

Mrs. Monica A. Pauli, M.B., Ch.B., B.A.O.
R. J. Irving Bell, M.R.C.S., L.R.C.P., D.P.H.
Mary Gibson, M.B., Ch.B., D.P.H.
A. M. Fraser, L.R.C.P., L.R.C.S., D.P.H.
B. J. Boulton, M.B., Ch.B.
Clara Jahoda, M.D. (Vienna)
Helen M. Gibb, M.B., Ch.B., D.P.H.
J. E. Kaye, Med. Dip. (Warsaw), D.P.H.
J. L. S. James, M.R.C.S., L.R.C.P. (Anaesthetist)
Kathleen E. Faulkner, M.B., Ch.B., D.C.H., D.P.H.
D. J. Sheerboom, M.B., B.S., D.P.H.
Mrs. Marjorie Mair, B.Sc., M.B., Ch.B.
E. Rogan, L.R.C.P.I. & L.M., L.R.C.S.I. & L.M., D.P.H. (to 16.11.58)
P. Tomlinson, M.D., D.P.H.
G. N. Febry, M.B., Ch.B. (from 20.1.58)
Audrey B. Stevenson, M.B., Ch.B., D.Obst.R.C.O.G., D.P.H. (from 15.9.58)
J. G. Moran, L.R.C.P., L.R.C.S., D.C.H., D.P.H. (from 1.1.58)

Part-time School Medical Officers

H. F. M. Finzel, M.D.
C. Jean Fraser, M.B., Ch.B., D.P.H.

Consultants—Part-time

Ear, Nose and Throat	H. D. Fairman, F.R.C.S.E., D.L.O. J. Freeman, F.R.C.S., D.L.O.
Orthopaedic	K. H. Pridie, M.B., B.S., F.R.C.S.* D. M. Jones, M.B., B.S., M.Ch.(Orth.), F.R.C.S.* H. Keith Lucas, M.Ch. (Orth.), F.R.C.S.E.
Ophthalmic	R. R. Garden, M.A., M.B., D.O.M.S., D.P.H. H. Bannerman, M.B., D.O.M.S. (to 1.2.58)* G. Saha, M.B., B.S., D.O. (from 1.2.58)*
Cardio-rheumatic	C. Bruce Perry, M.D., F.R.C.P. (by arrangement with United Bristol Hospitals)
Dermatology	R. P. Warin, M.D., M.R.C.P.* C. D. Evans, B.A., M.B., B.Ch. (Camb.)*

Chiropody	L. I. W. Tasker, M.Ch.S.
Orthoptist	Miss M. J. Smith, D.B.O.*

Dental Surgeons

(Joint Appointments with the Local Health Authority)

Principal School Dental Officer	W. H. B. Stride, L.D.S. (to 6.7.58) J. McCaig, L.D.S. (from 17.11.58)
School Dental Officers	A. H. V. Williams, L.D.S. H. W. Williams, L.D.S. Alice M. Trump, L.D.S. Helena Blinkworth, L.D.S. J. F. Sellin, L.D.S. R. D. Hepburn, L.D.S. W. E. C. Chaplin, L.D.S. G. D. Everard, L.D.S. M. C. W. Nicholls, L.D.S. (from 31.7.58) J. E. Ramsden, L.D.S. (from 1.9.58) Elizabeth R. Shinkwen, B.D.S. H. Hazell, L.D.S. (part-time)*
Oral Hygienist	Jean E. Bailey

Child Guidance Clinic

Director	R. F. Barbour, M.A., F.R.C.P., D.P.M.
Consultant Psychiatrists	W. L. Walker, M.B., Ch.B., D.P.H., D.P.M.* H. S. Coulsting, M.B., Ch.B., D.P.M. (from 1.5.58)* J. F. Warner, M.B., Ch.B. (to 30.6.58)* W. Johnson, M.R.C.S., L.R.C.P. (from 10.7.58)*
Senior Psychologist	R. V. Saunders, M.A., B.Ed.
Senior Assistant Psychologist	W. C. King, B.Sc.
Psychologists	Eleanor J. Horn, M.A., Dip. Ed. Margaret O'Flynn, B.A. (to 31.8.58) Kathleen Craib, M.A., B.Ed. (from 1.9.58)
Psychiatric Social Workers	Mrs. L. Gatliff Berry Harrison Margaret Astley (part-time) to 13.2.58 Mrs. Joan Scrine (part-time) from 12.5.58

Speech Clinic

Speech Therapists	Kathleen Coleman, L.C.S.T., S.R.N. Beryl Bolwell, L.C.S.T. Rosemary Morris, L.C.S.T. (to 30.4.58) Helen M. Streat, L.C.S.T. (from 1.9.58)

Nursing Service

Chief Nursing Officer	Miss L. M. Bendall, S.R.N., S.C.M., H.V. Cert.
Deputy Chief Nursing Officer	Miss V. P. Bowler, S.R.N., S.C.M., H.V. Cert. (to 25.6.58) Miss A. I. Rowbottom, S.R.N., S.C.M., Q.I.D.N., H.V.Cert. (from 1.7.58)

* By arrangement with the Regional Hospital Board.

The following staff changes took place during the year:—

Medical

The following resignations and appointments were made during the year in the joint medical staff of the Local Health and Education Authorities.

Resignations .. E. Rogan, L.R.C.P.I. & L.M., L.R.C.S., I. & L.M., D.P.H. (16.11.1958)
Appointments .. Audrey B. Stevenson, M.B., Ch.B., D.Obst.R.C.O.G., D.P.H. (15.9.1958)

Dental

Mr. W. H. B. Stride, L.D.S. retired from his post as Principal Dental Officer and was succeeded by Mr. J. McCaig, L.D.S. on 17.11.1958.

Other appointments .. M. C. W. Nicholls, L.D.S. (31.7.1958).
J. E. Ramsden, L.D.S. (1.9.1958).

Child Guidance

The South Western Regional Hospital Board appointed Dr. H. S. Coulsting as part-time consultant psychiatrist from 1.5.1958 and Dr. W. Johnston as psychiatric registrar on 10.7.1958 in place of Dr. J. F. Warner who relinquished this appointment on 30.6.1958.

Miss Margaret O'Flynn resigned her appointment as psychologist on 31.8.1958, and Miss Kathleen Craib was appointed in her place on 1.9.1958.

Persons other than those whose names appear in the list of staff who have contributed to this report are the following:

L. A. Tavener, *Superintendent Welfare Officer*
F. B. Richards, M.B., Ch.B., *Medical Officer-in-Charge, Mass Radiography Unit*
Miss T. B. Hetherington, *Chief Organiser of School Meals*
F. J. Redstone, F.R.S.H., F.S.P.H.I., *Chief Public Health Inspector*
J. MacA. Milne, *Chief Organiser of Physical Education*
C. Williams, *Head of South Bristol Open Air School*
B. M. Dyer, M.B.E., B.A., *Youth Employment Officer*
Mrs. Grace Woods, M.D., D.C.H., D.P.H., *Medical Officer, Cerebral Palsy Assessment Clinic and Claremont School for Spastic Children*
Miss M. Sharwood, *Head of Elmfield School for the Deaf*
Miss R. H. Sturman, *Visiting Teacher for Partially Deaf Children*
Miss M. J. Ram, B.A., *Head of Claremont School for Spastic Children*
Miss M. Chapman, *Nutritionist, Public Health Department*
Miss M. P. English, M.Sc., *Recognized Teacher in Medical Mycology, University of Bristol*
P. Mackintosh, B.A., *Health Education Officer, Bristol Public Health Department*
R. G. Lewis, *Head of Eastville Junior Mixed School*

SCHOOL CLINICS

Name of Clinic	*Address*	*Clinics Held*
Central Health Clinic	Tower Hill, Bristol 2. Tel. 2-6602.	Minor Ailment Inspection and Treatment. Dental Inspection and Treatment. Ophthalmic, Orthopaedic, Aural and Dermatological Consultant Clinics, Chiropody Clinic, Enuretic Clinic, Artificial Sunlight Clinic, T.B. Contact Clinic, Children's Chest Clinic.
Charlotte Keel Clinic	Claremont Street, Stapleton Road. Tel. 5-1545.	Minor Ailment Inspection and Treatment. Dental Inspection and Treatment.
Bedminster Health Clinic	Wedmore Vale, Bristol 3. Tel. 6-3798	Minor Ailment Inspection and Treatment. Dental Inspection and Treatment. Ophthalmic and Aural Consultant Clinics.
Granby House Clinic	St. John's Road, Bedminster. Tel. 6-4443.	Minor Ailment Inspection and Treatment.
Speedwell Health Clinic	Whitefield Road, Speedwell, Bristol 5. Tel. 67-3194.	Minor Ailment Inspection and Treatment. Dental Inspection and Treatment. Ophthalmic and Aural Consultant Clinics.
Portway Health Clinic	Shirehampton, Bristol. Tel. Avonm'th 2900.	Minor Ailment Inspection and Treatment. Dental Inspection and Treatment. Ophthalmic and Aural Consultant Clinics.
Southmead Health Clinic	Monks Park Ave., Southmead. Bristol. Tel. 62-6414.	Minor Ailment Inspection and Treatment. Dental Inspection and Treatment. Ophthalmic and Aural Consultant Clinics.
Brooklea Clinic	Wick Road, Brislington. Tel. 7-8861.	Minor Ailment Inspection and Treatment. Dental Inspection and Treatment.
Knowle Health Clinic	Broadfield Road, Bristol 4. Tel. 7-6643.	Minor Ailment Inspection and Treatment. Dental Inspection and Treatment.
Lawrence Weston Clinic	Ridingleaze, Lawrence Weston. Tel. Avonm'th 3205.	Minor Ailment Inspection and Treatment. Dental Inspection and Treatment.
William Budd Health Centre	Leinster Ave., Bristol 4. Tel. 6-1112.	Minor Ailment Inspection and Treatment.
Mary Hennessy Clinic	Hareclive Road, Hartcliffe, Bristol 3. Tel. 6-4282.	Minor Ailment Inspection and Treatment. Dental Inspection and Treatment.
John Milton Clinic	Crow Lane, Brentry, Bristol. Tel. 62-2160.	Minor Ailment Inspection and Treatment. Dental Inspection and Treatment.
Connaught Road School Clinic	Connaught Road School, Bristol 4.	Minor Ailment Treatment.
Verrier Road Clinic	Verrier Road, Redfield. Tel. 5-6387	Minor Ailment Treatment.
Child Guidance Clinic	7 Brunswick Square, Bristol 2. Tel. 2-6181	
Speech Clinics	1 Argyle Road, St. Paul's, Bristol 2. Tel. 2-6760 and Knowle Health Clinic.	

APPENDIX A

Outbreak of Sonne Dysentery arising from Infection Spread from a School Kitchen

D. J. Sheerboom

This is the first time that such an outbreak has occurred in Bristol, involving food served in the School Meals Service.

On October 1st the Health Department was informed by the Headmistress of a senior girls' school that she had 67 children and some staff away with diarrhoea and vomiting. On further enquiry, it appeared that they began to be ill following a mid-day meal, served by the School Meals Service, five days previously, and that the numbers away had steadily mounted. The suspect school kitchen also supplied an infants' school and this was found to be similarly affected, though to a lesser degree.

The kitchen concerned was visited and many specimens of the food used in the suspected meal were taken away for analysis, though not surprisingly all eventually proved negative. None of the kitchen staff admitted to any illness or any contact with a suspicious person. However, specimens were obtained from them all, and the kitchen was closed.

On October 2nd the outbreak reached its peak, with over 70 away at the girls' school, including some staff, and 16 at the infants' school, including 4 staff.

The Public Health Inspectors visited the schools, and advised the respective Head Teachers about general hygiene. They also visited the homes and obtained specimens from various staff and pupils who were still away ill.

On October 4th the organism was proved to be Shigella Sonnei, and 5 out of the six canteen staff were found to be positive, as were all the pupils and staff from whom specimens had been obtained.

It was decided that the kitchen staff should not be allowed to return to work until three successive specimens had been negative, with three days interval between each specimen, the specimens not to be taken during the period of treatment. Their private doctors were advised by Dr. Cayton of the Public Health Laboratory Service as to the most effective drug treatment. Teachers were allowed to return to work after one negative specimen, and because of the size of the problem it was decided to allow the children to return to school if clinically satisfactory.

After the 10th October, pupils and staff began to return in a steady stream and nearly 100 per cent were back at work by October 17th.

However, the kitchen staff, with the more strict control concerning their return to work, were not all clear until the end of October and the kitchen was re-opened on November 3rd.

It was an outbreak which probably could not have been prevented, owing to the symptomless nature of the original case, and it should cause no reflection on the high standards obtaining in the School Meals Service. It should, however, act as a warning to all concerned that unless the standard of hygiene is maintained at a high level, an outbreak of this kind is always a possibility.

APPENDIX B

In the Report for 1957 Dr. Rogan gave a preliminary account of a survey which he had been conducting into the onset of menarche in girls attending Bristol schools. Dr. Rogan now contributes a full report of this survey.

Menarche Survey in Bristol, 1956-1957

E. Rogan

In 1876 Roberts in the *Journal of the Statistical Society* wrote that "a factory child of the present day at the age of 9 years weighs as much as one of 10 years did in 1833 . . . each age has gained one year in 40 years."

This tendency for children to grow more rapidly has continued from that time. It has been noted and described by many workers in different countries. In recent years, Clements in Birmingham analysed heights and weights of children from different parts of the British Isles and showed that the average height and weight of children had increased by 2½—3½ inches and by 4—11 lb. from 1880—1947. There had been in that period an acceleration of 18 months growth, i.e. the average 6 year old child is now equivalent in height and weight to a child of 7½ years in 1880.

The rate of this increased rapidity of growth has not been constant; it was interrupted by the two world wars and an economic depression, but it still continues upwards.

On examining the growth of any individual from birth, it is recognised that growth does not occur constantly and gradually. There are two periods when a spurt in growth occurs, firstly the juvenile growth spurt at ages roughly 6—8 years and secondly the adolescent growth spurt at about 13—15 years.

The adolescent spurt occurs in all children though at different times and with a varying intensity. Girls on the whole experience it before boys and it is largely responsible for the difference in adult size of men and women. It is but one of the many phenomena that occur at puberty and because it extends over a period of years it is not easily measurable.

Of all the various physiological developments occurring at puberty, the only easily measurable event is the menarche, or the first menstruation. All other developments extend over some years, save the menarche which occurs at a definite point in time. That is no doubt why girls have been the subject of so many studies in puberty and adolescence.

Just as there has been a secular trend in heights and weights, so has there been a tendency over the last century for puberty as measured by the menarche to occur earlier.

Little attention has been paid to menarche in this country until comparatively recently and for evidence that puberty in girls was in fact occurring earlier one had to turn to the Scandinavian countries and to the U.S.A. J. H. Tanner in his book, *Growth at Adolescence* showed that the age at menarche has been getting less by one-third to half a year per decade over the period 1850—1950.

Reasons for Survey

For some time it has been apparent in Bristol that although children were measured and weighed approximately twice yearly by the health visitor, no growth standards had been prepared from this data. It was also becoming increasingly evident that more children in junior schools were experiencing puberty. If in fact menarche was occurring earlier then might not there be a problem facing junior schools? How many girls might one expect to have experienced menarche at these younger ages, and was it necessary to provide facilities for these children? Such considerations led to this Bristol survey in menarche. It was undertaken to elicit further facts about the menarche and also to collect height and weight data. The intention was that it could be used as a reliable standard as a measure of growth and sexual maturation for comparison, should other work be undertaken in the future in Bristol. Its main concern was the determination of the median age at menarche and the percentage of girls at the younger ages who have experienced the onset of menstruation.

A statistical technique known as Probit Analysis was used to determine the median age of menarche.

Collection of Data

The collection of data occupied almost a whole school year; it began in October 1956 and carried on to June 1957. Girls aged 11-plus to 19 were interviewed by the health visitor in the course of routine Nurse's Survey, at 26 comprehensive and secondary modern schools, 2 Local Authority grammar schools and 2 special schools for E.S.N. girls. A survey form was designed to be used by the health visitor.

Because large numbers of girls were to be interviewed it was considered that the value of the survey would be in no way impaired if the menstruation questions were confined to those girls in senior schools. The survey proceeded satisfactorily, the whole questionnaire was put to senior girls only but for the sake of completeness of heights and weights junior girls were weighed and measured although they took no part in the menarche survey.

Table I

In complete survey	8,131 girls
In probit analysis	5,685 „
Girls aged 12–15 in survey as percentage of Total in Local Authority Schools	63 per cent.
Attained menarche	3,288 girls
Unable to remember accurately the age at menarche	574 „

Altogether the health visitors interviewed 8,131 girls. Because many girls in junior schools had not been asked the menstruation questions and also to avoid possible bias by health visitors in the ones questioned, no child under 11 years 9 months was included in the probit analysis (2,031 girls). Also excluded from the probit calculations were girls over 15 years of age (365) because of small numbers and bias and a few others who, for some reason or another, were not questioned (50). This then left a total of 5,685 girls aged 11 years 9 months to the fifteenth birthday who were included in the probit calculations.

Can this number be regarded as a representative sample of Bristol schoolgirls? It should be understood that this survey included only girls attending Local Authority schools: 63 per cent of all such girls aged 12—15 years were interviewed; we think this is a fair sample. It is likely, however, that this may not give a true social class representation of Bristol girls as a whole because many girls coming from social class I and II homes attend private or independent schools and thus were not seen.

Altogether, 3,288 girls were found to have commenced menstruation but as many as 17 per cent were unable to remember the menarche: this will be referred to later.

Median Age at Menarche

The median age at menarche for all girls was found to be 13.17 years (13 years, 2 months). Grouping girls according to the type of school attended gave the following median ages for the onset of menstruation.

Table 2

Type of School		*No. of Girls*	*Median age of Menarche*	*Standard Error of Median Age (years)*
All schools		5,685	13·17 years	±0·022
Grammar		530	12·91 years	±0·07
Comprehensive	A	1,246	13·14 years	±0·04
and	B	2,996	13·20 years	±0·03
Secondary Schools	C	799	13·20 years	±0·06

The grouping of the Secondary Modern and Comprehensive schools into A, B and C was an attempt at rough social grading based on the school rather than the individual. The comprehensive schools with their grammar streams were all included in Group A. It can be seen that the median age at menarche is more or less constant in the Secondary Modern/Comprehensive schools, the tendency for the onset of menstruation to occur earlier in the Group A schools is not significant at the 5 per cent level of probability. In the grammar schools, however, the menarche occurs three months earlier than it does in the other schools and this is a statistically significant finding.

Comparison of the median age of menarche in Bristol and other areas is shown in Table 3.

Table 3

Median Age of Menarche in Bristol Schools compared with that found in other recent surveys

Type of School	*No. of Girls*	*Median age of Menarche*	*Standard error of Median Age (years)*
Day Schools in Bristol	5,685	13·17 years	±0·022
Day Schools in Essex, Dorset and Oxford 1948–49	2,590	13·49 years	±0·037
Dorset Boarding School 1949	401	13·89 years	±0·11
Edinburgh Schools 1954	435	13·35 years	
London Day Schools 1954	5,000 approx.	12·9 years	

Percentages of Ages of those Menstruating

Although girls in Junior schools were not questioned on menstruation, it is possible from the data available for the probit calculation to make a fairly accurate estimation of the percentages of girls at different ages who have attained the menarche.

Table 4

Percentage of Girls attaining Menarche by Age

Age	*Girls at Menarche*
10 years	0·1 per cent.
10 years 6 months	0·6 ,, ,,
11 years	2·4 ,, ,,
11 years 6 months	6·8 ,, ,,
12 years	15·3 ,, ,,
12 years 6 months	28·3 ,, ,,
13 years	44·3 ,, ,,
14 years	75·0 ,, ,,
15 years	92·5 ,, ,,

It is obvious that now many girls in Junior schools are menstruating. By 11 years 6 months almost 7 per cent, and by 12 years, 15 per cent of girls have attained menarche, and the problem of providing facilities for girls menstruating is now facing the Junior schools. Many heads of schools have of course made necessary provision but this is not the rule and there are now grounds for bringing this potential problem to the notice of teachers in Junior schools.

Influence of Memory

That 17 per cent of girls interviewed were unable to remember accurately the onset of menstruation seemed remarkable, especially so when the majority were aged 12, 13 and 14 years.

Table 5

Girls forgetting Age at Menarche

Type of School		*Age in years* 12	13	14	15
Grammar	No. forgetting menarche	1	0	4	8
	Total No. menstruating	73	110	146	103
	% forgetting	1·4	0	2·7	7·8
Secondary	No. forgetting menarche	106	140	221	27
	Total no. menstruating	537	901	1,041	121
	% forgetting ..	19·7	15·5	21·2	22·3

As might be expected the percentage of those failing to remember increased with age. Grammar School girls remembered with greater accuracy than did Secondary Modern girls. It seems almost impossible that girls of 12 years should forget the onset of menstruation. Many writers have spoken of menarche as the event, the landmark that is remembered many years later. That it is regarded as such is not borne out by the findings here.

Socio-economic factors

Socio-economic factors have been known to influence to a marked degree the age at menarche, and it has been shown by various workers that such factors outweigh even racial and climatic factors. Because many children in Bristol were unaware of the occupation of their fathers, it was not found possible to group the children by social class distribution. The children were, however, grouped by districts of the City in an effort to determine if any socio-economic factor was operating on the age at menarche. There was no difference in the girls from different City wards at all ages and it was concluded that there was no gross socio-economic influence.

Incidence of Menarche

Over many years various workers have claimed the existence of a seasonal variation in the incidence of menarche. It was to investigate this, that girls had been asked if they remembered accurately the onset of menstruation.

The average per day for each of the twelve months of girls attaining menarche varied considerably:

January	12·2
February	5·5
March	5·3
April	6·2
May	3·8
June	6·1
July	6·9
August	12·8
September	9·6
October	4·9
November	7·5
December	8·3

This variation is unlikely to have occurred by chance, and it would appear that there is some underlying cause for this.

$X^2 = 361$ (Df 11) which has a probability of much less than 1 in 1000.

There is a marked difference in the month of onset for all girls and also for Grammar School girls. There were 574 girls who could not remember the menarche accurately but allowing for an even monthly distribution of these girls the result is in no way affected. Only 5 per cent. of Grammar School girls could not remember the menarche and the distribution of menarche incidence in Grammar girls is remarkably similar.

This high incidence in January and August and to a less extent September, is a highly significant finding. The same pattern of high incidence in January and August can be observed throughout 1954, 1955 and 1956. It is therefore unlikely to be just an approximation of memory, otherwise the girls with recent onset would show less of the effect.

January, August and September are holiday months, often times of excitement and the time when most children are mingling with adults freely. It has been suggested that such a stimulus may trigger off, as it were, the menarche in one who was at the stage of approaching sexual maturity.

Influence of Birthday Month

By the same token, birthdays are generally times of festivity and excitement and we found a similar influence.

In this survey 11.9 per cent of girls experienced menarche in their birthday months. This is unlikely to have occurred by chance and is a highly significant finding.

$X^2 = 97.379$. Probability much less than 1 in 1000.

It was mentioned earlier that it was hoped to prepare standards for height and weight of Bristol girls in this adolescent age range.

There was no difference in the heights and weights of girls attending the three groups of secondary modern schools. Grammar school girls, however, were appreciably heavier than secondary modern girls by 3—8 lb., and taller at the younger ages, but only by about ½ in. This difference may have been more accentuated had we been able to include girls in private schools of similar standing to grammar schools.

Table 6

Comparison of Heights and Weights of Girls of 12, 13, 14 years of age who have and have not attained Menarche

	Age 12		*Age 13*		*Age 14*	
	Attained Menarche	*Not*	*Attained Menarche*	*Not*	*Attained Menarche*	*Not*
			Average Height in Inches			
Bristol 1956–57 ..	61·4	58·6	62·4	60·1	62·9	61·4
Oxford 1948–49 ..	62·3	59·4	63·0	60·9	63·6	62·2
London 1954 ..	60·9	58·6	62·0	60·1	62·9	61·6
			Average Weight in Pounds			
Bristol 1956–57 ..	106·9	86·3	109·8	91·0	112·8	95·8
Oxford 1948–49 ..	113·6	87·2	118·2	93·0	117·2	100·9
London 1954 ..	105·6	87·6	108·2	93·3	114·6	99·5

Another point of note was the big difference in height and weight in girls of the same age depending on whether or not they had passed menarche. This can be seen in Table 6 which compares children in Bristol, Oxford and London.

Conclusions

1.—The Bristol figures supply further evidence that maturity continues to be achieved at earlier ages.

2.—Although there are no significant differences in age of menarche in the different wards of the City, the children attending local education authority grammar schools did have a significantly early menarche.

3.—As many as 15 per cent of girls are menstruating before the age of 12. Therefore it is obviously necessary for junior schools to provide facilities for these children.

4.—It has been established that the monthly variation in the onset of menarche is so great that it is extremely unlikely to have happened by chance. The cause is obscure but holidays and mingling with adults may "trigger off" the menarche.

5.—The birthday month also influences the menarche but not to such a high degree as the January and August months.

6.—It would seem that at this period of growth due attention must be paid to the stage of sexual maturation in assessing normal development.

APPENDIX C

Accidents in Schools 1958

C. E. Cooke

A record of accidents in Bristol schools has again been kept as in previous years, though not in quite such detail. The findings have been much the same, though the overall accident rate is slightly higher—0.94 per cent. This is partly accounted for by the rise in the school population at the older ages. The accident rate among children at primary schools was 0.67 per cent and at secondary schools 1.44 per cent.

A special record has been kept of the numbers of accidents sustained in each school, as it seems probable that some schools may be "accident prone".

In the accompanying graph which shows the distribution of accidents in the secondary schools, the two schools with the highest accident rate are new comprehensive ones on new housing estates in the city.

Many of the accidents have occurred during games at the field or in the playground, but in the case of the school with the highest number of accidents, over 40 per cent of these took place in corridors and on stairs.

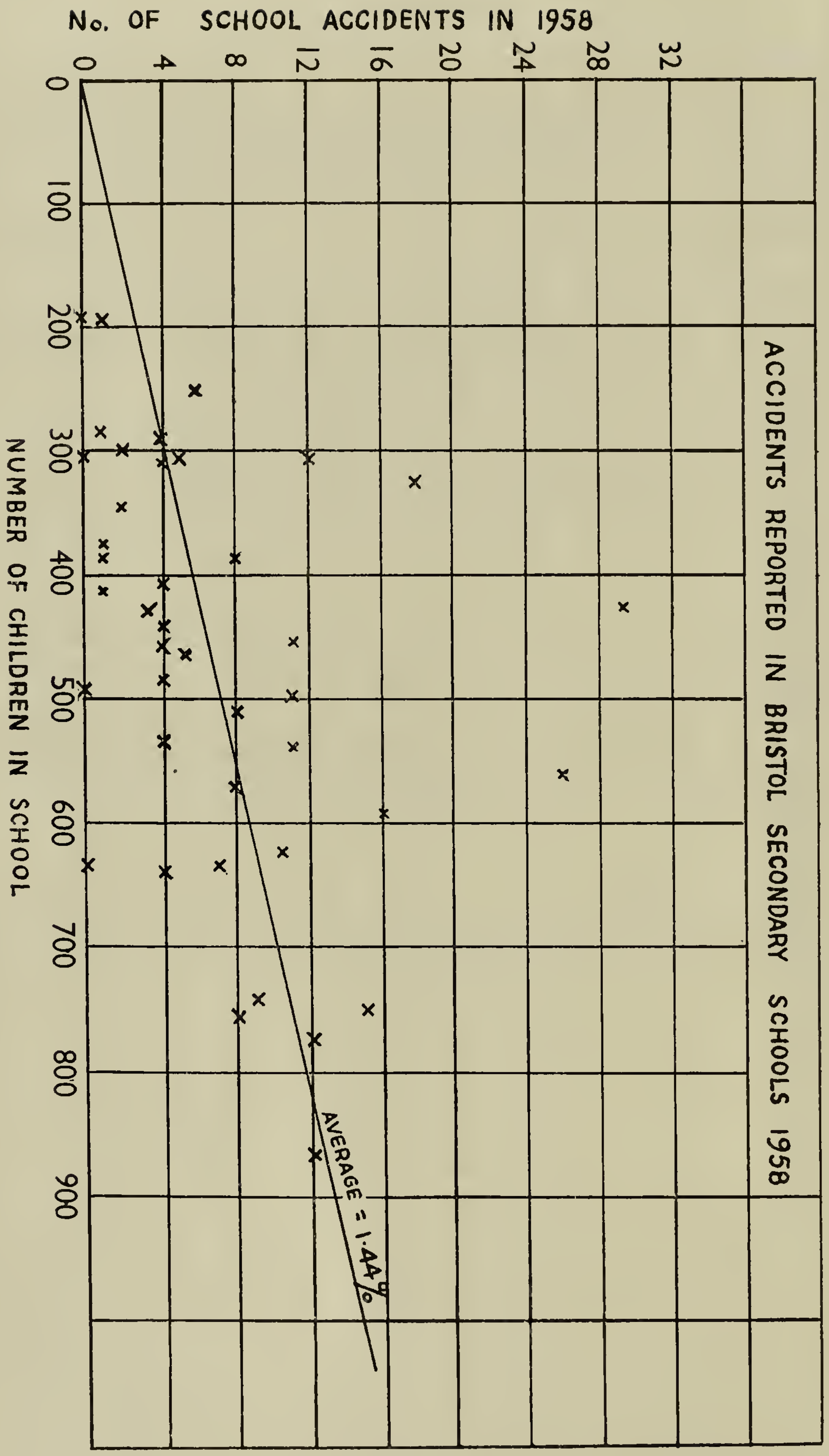
In 1956 a school that was new at that time suffered an outstanding number of accidents, but in 1958 the rate was below average. It is interesting to note that an old all boys' school with very cramped conditions had only one accident in 1958.

Might it be that the unusual space in the large new schools adds to the insecurity which is already bound to be felt by children coming to completely different surroundings, and meeting so many new staff as well as other children of all grades of society?

It may, of course, be a coincidence, but the school with the highest accident rate in the primary section was again a school which as yet has no outdoor climbing apparatus. At this school 50 per cent of the accidents took place during playtime.

Accident-prone Children

Five children had two accidents in 1958, but not one of these children had had an accident reported in previous years.



ACCIDENTS REPORTED IN BRISTOL SECONDARY SCHOOLS 1958

STATISTICAL TABLES

YEAR ENDING 31st DECEMBER, 1958

PART I—MEDICAL INSPECTION OF PUPILS ATTENDING MAINTAINED AND ASSISTED PRIMARY AND SECONDARY SCHOOLS (INCLUDING NURSERY AND SPECIAL SCHOOLS)

TABLE A.—PERIODIC MEDICAL INSPECTIONS

Age Groups Inspected (By year of birth)	*No. of Pupils Inspected*	*Physical Conditions of Pupils Inspected*			
		Satisfactory		*Unsatisfactory*	
		No.	*% of Col. 2*	*No.*	*% of Col. 2*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1954 and later	946	921	97·4	25	2·6
1953	860	798	92·8	62	7·2
1952	3,349	3,208	95·8	141	4·2
1951	795	751	94·5	44	5·5
1950	552	535	96·9	17	3·1
1949	1,814	1,743	96·1	71	3·9
1948	398	389	97·7	9	2·3
1947	389	386	99·2	3	0·8
1946	558	539	96·6	19	3·4
1945	1,074	1,035	96·4	39	3·6
1944	1,266	1,239	97·9	27	2·1
1943 and earlier	4,943	4,830	97·7	113	2·3
TOTAL	16,944	16,374	96·6	570	3·4

TABLE B.—PUPILS FOUND TO REQUIRE TREATMENT AT PERIODIC MEDICAL INSPECTIONS (excluding Dental Diseases and Infestation with Vermin)

Age Groups Inspected (By year of birth) *(1)*	*For defective vision (excluding squint)* *(2)*	*For any of the other conditions recorded in Part II* *(3)*	*Total indiv. pupils* *(4)*
1954 and later	4	74	78
1953	6	105	109
1952	29	461	480
1951	12	104	112
1950	13	62	70
1949	43	198	234
1948	15	54	69
1947	14	50	62
1946	27	73	90
1945	49	145	190
1944	41	112	148
1943 and earlier	148	439	575
TOTAL	401	1,877	2,217

TABLE C.—OTHER INSPECTIONS

Number of Special Inspections	20,037
Number of Re-inspections	27,036
Total	47,073

TABLE D.—INFESTATION WITH VERMIN

(*a*)	Total number of individual examinations of pupils in schools by school nurses or other authorised persons	109,766
(*b*)	Total number of individual pupils found to be infested	1,584
(*c*)	Number of individual pupils in respect of whom cleansing notices were issued (Section 54 (2), Education Act, 1944)	366
(*d*)	Number of individual pupils in respect of whom cleansing orders were issued (Section 54 (3), Education Act, 1944)	58

PART II—DEFECTS FOUND BY MEDICAL INSPECTION DURING THE YEAR

TABLE A.—PERIODIC INSPECTIONS

Defect or Disease	*Periodic Inspections*							
	Entrants		*Leavers*		*Others*		*Total*	
	*(T)	*(O)	(T)	(O)	(T)	(O)	(T)	(O)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Skin	66	12	135	4	127	11	328	27
Eyes—(*a*) Vision	48	27	158	13	195	50	401	90
(*b*) Squint	49	26	7	1	18	9	74	36
(*c*) Other	37	11	13	3	23	5	73	19
Ears—(*a*) Hearing	40	20	14	1	20	11	74	32
(*b*) Otitis Media	21	23	17	3	11	8	49	34
(*c*) Other	9	2	4	—	9	—	22	2
Nose and Throat	316	195	50	4	139	50	505	249
Speech	26	48	2	1	23	7	51	56
Lymphatic Glands	63	67	6	—	13	19	82	86
Hearts	29	31	33	9	18	29	80	69
Lungs	73	75	32	15	76	31	181	121
Developmental—								
(*a*) Hernia	18	11	6	—	18	1	42	12
(*b*) Other	16	37	9	17	22	45	47	99
Orthopaedic—								
(*a*) Posture	10	15	24	9	29	15	63	39
(*b*) Feet	6	5	16	1	20	7	42	13
(*c*) Other	19	21	37	7	42	13	98	41
Nervous System—								
(*a*) Epilepsy	11	6	13	5	12	4	36	15
(*b*) Other	5	10	3	3	9	7	17	20
Psychological—								
(*a*) Development	25	17	1	—	19	9	45	26
(*b*) Stability	47	41	10	2	41	22	98	65
Abdomen	—	2	3	—	1	—	4	2
Other	16	63	45	16	48	38	109	117

*(*T*)=Treatment. *(*O*)=Observation.

TABLE B.—SPECIAL INSPECTIONS

Defect or Disease	*Special Inspections*	
	Pupils req. Treatment	*Pupils req. Observation*
(1)	(2)	(3)
Skin	3,313	10
Eyes—(*a*) Vision	1,080	58
(*b*) Squint	53	15
(*c*) Other	577	10
Ears—(*a*) Hearing	64	16
(*b*) Otitis Media	71	11
(*c*) Other	228	1
Nose and Throat	500	64
Speech	54	16
Lymphatic Glands	72	27
Heart	43	21
Lungs	100	43
Developmental—		
(*a*) Hernia	19	3
(*b*) Other	22	44
Orthopaedic—		
(*a*) Posture	18	20
(*b*) Feet	32	6
(*c*) Other	269	34
Nervous System—		
(*a*) Epilepsy	12	4
(*b*) Other	27	10
Psychological—		
(*a*) Development	36	16
(*b*) Stability	57	35
Abdomen	—	1
Other	4,990	78

PART III—TREATMENT OF PUPILS ATTENDING MAINTAINED AND ASSISTED PRIMARY AND SECONDARY SCHOOLS (INCLUDING NURSERY AND SPECIAL SCHOOLS)

TABLE A.—EYE DISEASES, DEFECTIVE VISION AND SQUINT

	Number of cases known to have been dealt with
External and other, excluding errors of refraction and squint ..	1,191
Errors of refraction (including squint)	5,423
TOTAL ..	6,614
Number of pupils for whom spectacles were prescribed	2,303

TABLE B.—DISEASES AND DEFECTS OF EAR, NOSE AND THROAT

	Number of cases known to have been dealt with
Received operative treatment—	
(*a*) for diseases of the ear	18
(*b*) for adenoids and chronic tonsillitis	2,059
(*c*) for other nose and throat conditions	210
Received other forms of treatment	695
TOTAL ..	2,982
Total number of pupils in schools who are known to have been provided with hearing aids—	
(*a*) in 1958	19
(*b*) in previous years	68

TABLE C.—ORTHOPAEDIC AND POSTURAL DEFECTS

	Number of cases known to have been treated
(*a*) Pupils treated at clinics or out-patients departments	679
(*b*) Pupils treated at school for postural defects	—
TOTAL ..	679

TABLE D.—DISEASES OF THE SKIN

(excluding uncleanliness, for which see Table D of Part I)

	Number of cases known to have been treated
Ringworm—(*a*) Scalp	3
(*b*) Body	139
Scabies	71
Impetigo	194
Other skin diseases	3,483
TOTAL ..	3,890

TABLE E.—CHILD GUIDANCE TREATMENT

	Number of cases known to have been treated
Pupils treated at Child Guidance Clinics	332

TABLE F.—SPEECH THERAPY

	Number of cases known to have been treated
Pupils treated by speech therapists	270

TABLE G.—OTHER TREATMENT GIVEN

		Number of cases known to have been treated
(*a*)	Pupils with minor ailments	11,135
(*b*)	Pupils who received convalescent treatment under School Health Service arrangements	10*
(*c*)	Pupils who received B.C.G. vaccination	3,251
(*d*)	Other than (*a*), (*b*) and (*c*) above	
	Chiropody	714
	U.V.L.	55
	Enuresis	234
	Asthma	91
	T.B. Contact	719
	TOTAL (*a*)—(*d*)	16,209

* Though the arrangements were made through the School Health Service, the pupils concerned were admitted to convalescent homes maintained by the Regional Hospital Board.

PART IV—DENTAL INSPECTION AND TREATMENT CARRIED OUT BY THE AUTHORITY

(1)	Number of pupils inspected by the Authority's Dental Officers:—			
	(*a*) At Periodic Inspections	46,235	Total (1)	51,001
	(*b*) As Specials	4,766		
(2)	Number found to require treatment			35,063
(3)	Number offered treatment			33,014
(4)	Number actually treated			17,699
(5)	Number of attendances made by pupils for treatment, including those recorded at 11 (*h*)			44,851
(6)	Half days devoted to:			
	(*a*) Periodic (School) Inspection	329	Total (6)	5,390
	(*b*) Treatment	*5,061		
(7)	Fillings:			
	(*a*) Permanent teeth	18,472	Total (7)	21,874
	(*b*) Temporary teeth	3,402		
(8)	Number of teeth filled:			
	(*a*) Permanent teeth	15,363	Total (8)	18,596
	(*b*) Temporary teeth	3,233		
(9)	Extractions:			
	(*a*) Permanent teeth	6,063	Total (9)	20,835
	(*b*) Temporary teeth	14,772		
(10)	Administration of general anaesthetics for extraction			10,336
(11)	Orthodontics:			
	(*a*) Cases commenced during the year			627
	(*b*) Cases carried forward from previous year			226
	(*c*) Cases completed during the year			28
	(*d*) Cases discontinued during the year			—
	(*e*) Pupils treated with appliances			—
	(*f*) Removable appliances fitted			—
	(*g*) Fixed appliances fitted			—
	(*h*) Total attendances			1,258
(12)	Number of pupils supplied with artificial teeth			134
(13)	Other operations:			
	(*a*) Permanent teeth	11,468	Total (13)	18,449
	(*b*) Temporary teeth	6,981		

* In addition 496 half days were given to the treatment of mothers and young children.

The figures given under (11) Orthodontics refer to work done at the diagnostic clinic held at the Authority's Central Clinic. Children requiring treatment with appliances are referred to the Bristol Dental Hospital for further treatment and provision of the necessary appliances. The cases completed (*c*) are those that were dealt with at the clinic by extractions.

SCHOOL CLINICS

1957 No. of attendances		*Work*	*1958 No. of attendances*
33,178	Central Health Clinic	Inspection clinic; treatment of minor ailments; ear, nose and throat clinic; dental treatment; orthodontic treatment; oral hygienist; refraction clinic; asthma clinic; enuretic clinic; T.B. contact clinic; treatment of scabies cases; orthopaedic clinic; remedial exercises; electrical treatment; physiotherapy, massage and foot treatment; artificial sunlight treatment ..	32,780
8,694	Brooklea Clinic	Inspection clinic; treatment of minor ailments	7,520
18,811	Bedminster Health Clinic	Inspection clinic; treatment of minor ailments; ear, nose and throat clinic, dental treatment; and refraction clinic ..	15,658
625	William Budd Health Centre	Inspection clinic; treatment of minor ailments	581
4,626	Granby House Clinic	Inspection clinic; treatment of minor ailments	3,716
2,377	Lawrence Weston Clinic	Inspection clinic; treatment of minor ailments; dental treatment	1,551
11,019	Knowle Health Clinic	Inspection clinic; treatment of minor ailments ; dental treatment	9,312
18,806	Speedwell Health Clinic	Inspection clinic; treatment of minor ailments; ear, nose and throat clinic; dental treatment and refraction clinic ..	14,737
4,127	Verrier Road Clinic	Treatment of minor ailments	2,161
15,564	Portway Clinic	Inspection clinic; treatment of minor ailments; ear, nose and throat clinic; dental treatment and refraction clinic ..	13,695
21,219	Southmead Clinic	Inspection clinic; treatment of minor ailments; ear, nose and throat clinic; dental treatment and refraction clinic ..	20,236
8,938	Charlotte Keel Clinic	Inspection clinic; treatment of minor ailments; dental treatment	7,771
5,122	Mary Hennessy Clinic	Inspection clinic; treatment of minor ailments; dental treatment	7,177
989	John Milton Clinic	Inspection clinic; treatment of minor ailments; dental treatment	1,063
13,613	Connaught Road School Clinic	Treatment of minor ailments	13,776
1,307	Day E.S.N. Special Schools	Treatment of minor ailments	383
11,922	Novers Open Air School	Remedial exercises and massage; treatment of minor ailments	10,956
732	Cardio-Rheumatic Clinic	Cases of heart disease and rheumatic disease	707
2,682	Child Guidance Clinic	.. ..	2,637
4,438	Speech Clinics ..	.. ..	3,748
1,067	Dental Hospital	.. ..	1,556
189,856		Total Attendances	171,721